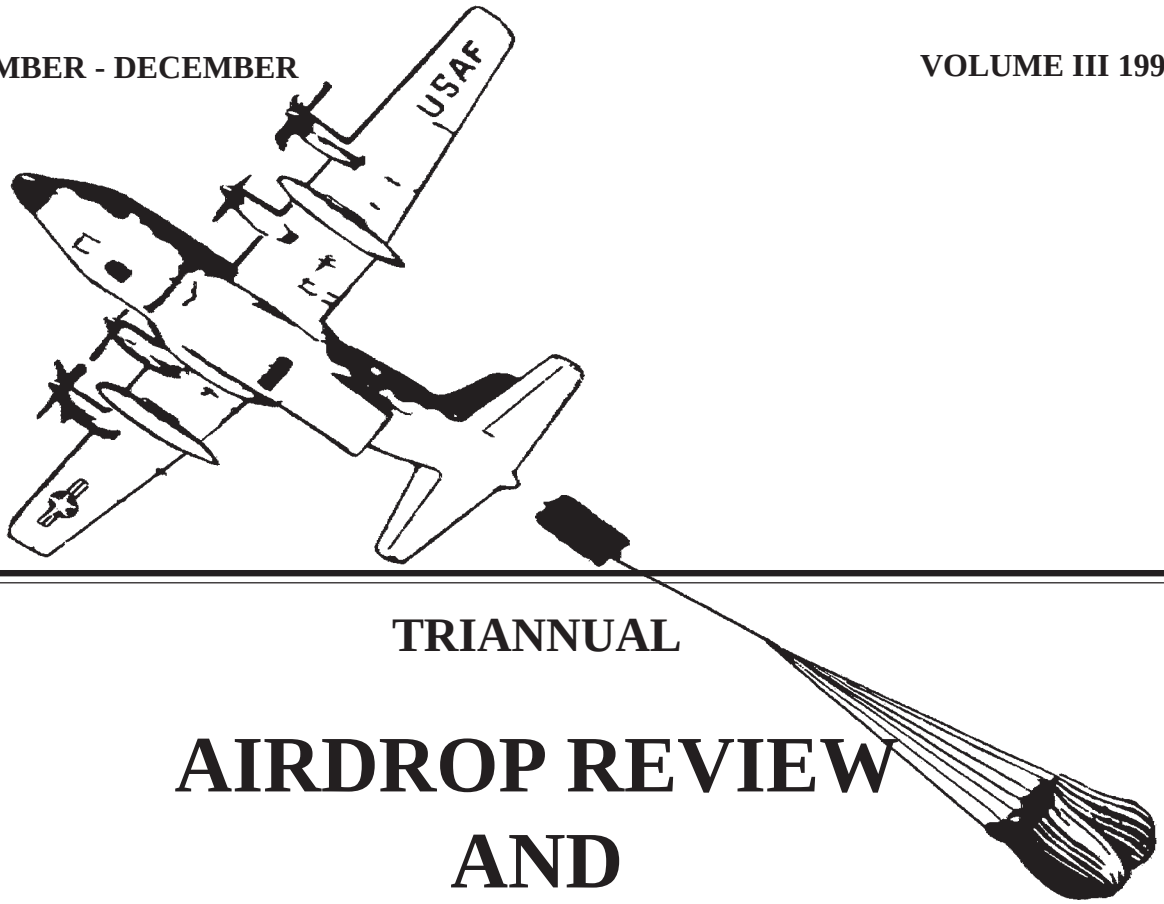
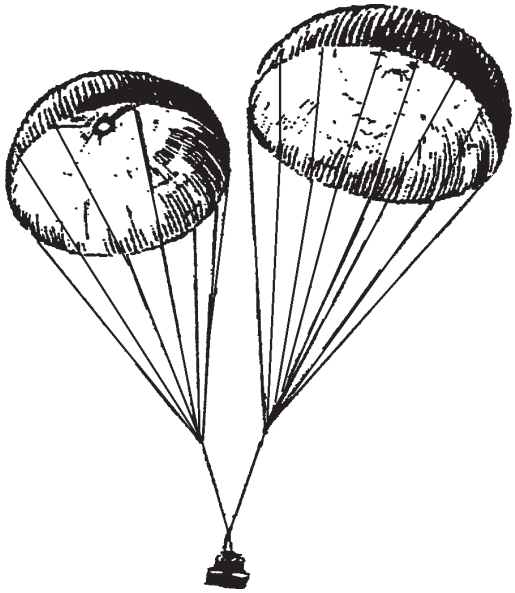
SEPTEMBER - DECEMBER

VOLUME III 1996



TRIANNUAL

AIRDROP REVIEW AND MALFUNCTION/SAFETY ANALYSIS



PREPARED BY
THE US ARMY QUARTERMASTER SCHOOL
FORT LEE, VIRGINIA 23801-1502

AIRBORNE CREED

I am an Airborne trooper! A paratrooper!

I jump by parachute from any plane in flight. I volunteered to do it, knowing well the hazards of my choice.

I serve in a mighty Airborne Force—famed for deeds in war—renowned for readiness in peace. It is my pledge to uphold its honor and prestige in all I am—in all I do.

I am an elite trooper—a sky trooper—a shock trooper—a spearhead trooper. I blaze the way to far-flung goals—behind, before, above the foe's front line.

I know that I may have to fight without support for days on end. Therefore, I keep mind and body always fit to do my part in any airborne task. I am self-reliant and unafraid. I shoot true, and march fast and far. I fight hard and excel in every art and artifice of war.

I never fail a fellow trooper. I cherish as a sacred trust the lives of men with whom I serve. Leaders have my fullest loyalty, and those I lead never find me lacking.

I have pride in the Airborne! I never let it down!

In peace, I do not shirk the dullest duty nor protest the toughest training. My weapons and equipment are always combat ready. I am neat of dress—military in courtesy—proper in conduct and behavior.

In battle, I fear no foe's ability, nor underestimate his prowess, power and guile. I fight him with all my might and skill—ever alert to evade capture or escape a trap. I never surrender, though I be the last.

My goal in peace or war is to succeed in any mission of the day—or die, if needs be, in the try.

I belong to a proud and glorious team—the Airborne, the Army, my Country. I am its chosen pride to fight where others may not go—to serve them well until the final victory.

I am a trooper of the sky! I am my Nation's best! In peace and war I never fail. Anywhere, anytime, in anything—I am AIRBORNE!

IN THIS ISSUE

VOLUME III - 1996

PREFACE

The airdrop review and malfunction/safety analysis is published by the US Army Quartermaster School in hopes that by "passing the word" the malfunction rate within the Armed Forces may be minimized. The review and analysis in this issue covers the period 1 September - 31 December 1996.

POC AND MAILING ADDRESS

The POC for Airdrop Malfunction Reports, Monthly Airdrop Summary Reports, and any other information concerning the Airdrop Review and Malfunction/Safety Analysis is Mr. Roger Hale. All correspondence for the above reports and analysis should be addressed to:

AERIAL DELIVERY AND FIELD SERVICES DEPARTMENT
ATTN MR ROGER HALE
USA QUARTERMASTER CENTER AND SCHOOL
1010 SHOP ROAD
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REPORTS AND ANALYSES

The Malfunction Review Board met at Fort Bragg on 26-27 February 1997. A breakdown of the areas in which malfunctions occurred from 1 September through 31 December 1996 follows:

CATEGORY	QUANTITY
Containers/CRRC	27
Platforms	
LVAD	12
Personnel	24

All DD Forms 1748-2 (Airdrop Malfunction Report (Personnel-Cargo)) are reviewed, and any identifying information is removed. Block 24 is annotated to include both Army and Air Force references if only one is given. No grammatical editing is done to the reports.

CARGO MALFUNCTION REPORTS AND ANALYSIS

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130E	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE *(Feet)* 1163 MSL	10. ACFT SPEED *(Knots)* 140 KNOTS	11. DZ ELEVATION *(Feet)* 393 AGL	12. SURFACE WINDS *(Knots)* 360 @ 6 KNOTS	13. VISIBILITY *(Feet/Miles)* 1FR

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS/1200 LBS A-22 (48" X 48")	24. RIGGED IAW *(TM/TO/NAVAIR No.)* FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED DUAL RAIL:	X CDS RELEASE GATE	OTHER *(Explain)*
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22 (48" X 48")	27. TYPE PARACHUTE AND NUMBER 1 x G-12E	28. SIZE EXTRACTION/RELEASE PARACHUTE 68" PILOT CHUTE	29. LENGTH OF REEFING LINE N/A	30. POSITION OF LOAD IN AIRCRAFT FS 695

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Gate failed to cut after retriever activated. Load failed to exit. The CDS container was crushed by the force exerted on the release gate by the static retriever. Loadmasters (3 each) confirmed 3 second activation of the retriever. The guillotine knife safety tie did not break.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

It was determined that the CDS container collapsed under the force of the release gate and alternate forward barrier induced by the pulling force of the retiever. The container was not constructed solidly. Items were stacked into container with a gap around the entire mid-section coincidentally where the release gate and barrier contact the container.

CONTINUED ON NEXT PAGE

ANALYSIS: 1

WHAT WAS THE MALFUNCTION?

Release gate failed to cut after the retriever activated

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The CDS container was crushed by the force exerted from the Type XXVI causing insufficient tension on the release gate.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Add a load spreader.
2. Ensure CDS bundles are built properly.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130H	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE *(Feet)* 600 AGL	10. ACFT SPEED *(Knots)* 140 KIAS	11. DZ ELEVATION *(Feet)* 715 MSL	12. SURFACE WINDS *(Knots)* 310/10	13. VISIBILITY *(Feet/Miles)* Unrestricted

III. CARGO				
23. TYPE LOAD AND WEIGHT	24. RIGGED IAW *(TM/TO/NAVAIR No.)*	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	X CDS RELEASE GATE	OTHER *(Explain)*
High Velocity CDS/700 LBS	FM 10-500-3/ TO 13C7-1-11	NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
A-22	1-26' HV			FS 730

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Failure of 26-foot high-velocity parachute to deploy. Training load was destroyed.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

CDS training bundle exited aircraft normally. Breakaway tie broke before all bag closing ties broke. Suspension lines deployed. Deployment bag was observed rippling above load. The parachute did not deploy. Load impacted ground and was destroyed. Inspection revealed all rigging was in accordance with TO. Center bag closing tie failed to break.

CONTINUED ON NEXT PAGE

ANALYSIS: 2

WHAT WAS THE MALFUNCTION?

26-foot high-velocity parachute failed to deploy.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Breakaway tie broke (static line) first causing the primary bag closing tie not to break.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Use non-breakaway static lines for unilateral training loads (reference message 2209402 Oct 96).

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C130H	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (*Feet*) 600 AGL	10. ACFT SPEED (*Knots*) 130	11. DZ ELEVATION (*Feet*) 1443 MSL	12. SURFACE WINDS (*Knots*) 190 @ 5	13. VISIBILITY (*Feet/Miles*) 7 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (*TM/TO/NAVAIR No.*)	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	X CDS RELEASE GATE	OTHER (*Explain*)
CDS Bundle 1100 LBS	FM 10-500-3/ TO 13C7-1-11	NO. PLATFORMS N/A	NO. CONTAINERS 1	NON-CVR
26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
48 x 48 (NON-CVR)	1 EA G-12E	N/A	N/A	FS 430

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Left hand static line retriever activated at green light and shut off in less than 1 second. Gate not cut. No damage to load or aircraft.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Left hand static line retriever failed to operate for the required 3 seconds. Retriever checked by maintenance upon landing and was found to be defective. The winch was repaired and tolerances were set in accordance with TO specifications.

CONTINUED ON NEXT PAGE

ANALYSIS: 3

WHAT WAS THE MALFUNCTION?

The release gate failed to cut.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The left hand static line retriever was found to be defective causing it to shut off after 1 second of activation.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure break test for static line retriever is conducted during preflight.

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130H	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
N/A	N/A	200 MSL	CALM	7+

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED			
			DUAL RAIL	X CDS RELEASE GATE	OTHER (Explain)
CDS 9870 LBS	FM 10-500-3/ TO 13C7-1-11 CHAPTER 10	NO. PLATFORMS	NO. CONTAINERS		
			5		CVR

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
A-22	G-12E	68" Pilot Parachute	N/A	Pulley: FS 617 Gate: FS 677

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

This malfunction occurred on a JRTC mission dropping a five-bundle single stick CDS load. When the brakes were released during takeoff roll, the load shifted aft and rolled onto the ramp area. Two aircraft roller conveyors were damaged and a few studs were pulled out of the floor. There was no other damage to equipment or any injury to personnel.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

An investigation on the aircraft revealed that the load was rigged on the left side of the aircraft. The aft edge of the buffer stop assembly (BSA) was at FS 437 and the Van Zelm ratchets were aft of the wheel well area. The CDS bundles consisted of wooden ammo boxes. The Type XXVI release gate showed no evidence of any cuts or unusual wear. The left or outboard Van Zelm ratchet was the point of failure and the other ratchet held. Interviews with the aircraft loadmaster and JAI indicate that the gate was inspected by three different individuals, and that the gate was tight before taxi. The aircraft loadmaster stated that the spindle had the minimum 1 1/2 turns, and that the running end was taped on the top or ratchet handle side of the ratchet. JAI stated that he physically touched the ratchet during inspection. Physical inspection of the Van Zelm ratchet by numerous loadmasters could find no defect with its working order. The only possible cause was the absence of "ATTENTION TO DETAILS". Obviously, the running end of the gate was taped on the bottom side of the ratchet. This will give the illusion of 1 1/2 turns on the ratchet's spindle; however, in reality, there is less.

CONTINUED ON NEXT PAGE

ANALYSIS: 4

WHAT WAS THE MALFUNCTION?

Bundles shifted/rolled onto the ramp.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The Van Zelm ratchet was found to be defective.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Inspect Van Zelm ratchet for serviceability before using.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130E	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1100 MSL	10. ACFT SPEED (Knots) 140	11. DZ ELEVATION (Feet) 475	12. SURFACE WINDS (Knots) CALM	13. VISIBILITY (Feet/Miles) CLEAR

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 840 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11 CHAPTER 10	25. AERIAL DELIVERY SYSTEM USED DUAL RAIL:	X CDS RELEASE GATE	OTHER (Explain) CVR
		NO. PLATFORMS	NO. CONTAINERS 5	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-foot High-Velocity - One	28. SIZE EXTRACTION/RELEASE PARACHUTE N/A	29. LENGTH OF REEFING LINE N/A	30. POSITION OF LOAD IN AIRCRAFT Pulley: FS 617 Gate: FS 680

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

This malfunction occurred on a day formal training unit (FTU) local mission dropping two 5-bundle CDS loads on separate passes across the drop zone. On the second pass, the third bundle that exited the aircraft failed to open. The load was destroyed; however, there was no other damage to equipment or nay injury to personnel.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

This report covers three different malfunctions consisting of two 5-bundle CDS loads and a single CDS. These bundles were rigged in accordance with TO 13C7-1-11, Change 1 and TO 1C-130A-9. The rigging was correct for breakaway static lines both internally in the parachute and on the aircraft. Investigations on the drop zone revealed that the 26-foot cargo parachute's center bag closing tie did not break.

CONTINUED ON NEXT PAGE

ANALYSIS: 5

The 26-foot high-velocity parachute failed to deploy.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Breakaway tie broke (static line) first causing the primary bag closing tie not to break.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Use non-breakaway static lines for unilateral training loads (reference message 220904Z October 96).

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130E	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
1100 MSL	140	372	CALM	CLEAR

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED			
			DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
CDS 810 LBS	FM 10-500-3/ TO 13C7-1-11 CHAPTER 10	NO. PLATFORMS	X NO. CONTAINERS 5		CVR

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
A-22	26' HV/1	N/A	N/A	Pulley: FS 617 Gate: FS 680

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

This malfunction occurred on a day formal training unit (FTU) local training mission dropping two 5-bundle CDS loads on separate passes across the DZ. On the second pass, the first bundle that exited the aircraft failed to open. The load was destroyed; however, there was no other damage or any injury to personnel.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

This bundle was rigged using the procedures in TO 13C7-1-11, change 1 and TO 13C7-130A-9. The rigging was correct for breakaway static lines both internally in the parachute and on the aircraft. Investigations on the drop zone revealed that the 26-foot cargo parachute's center bag closing tie did not break. Since the new CDS procedures have been instituted, we have encountered a 4.3 percent malfunction rate directly attributed to the center bag closing tie.

CONTINUED ON NEXT PAGE

ANALYSIS: 6

WHAT WAS THE MALFUNCTION?

The 26-foot high-velocity parachute failed to deploy.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Breakaway tie broke (static line) first causing the primary bag closing tie not to break.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Use non-breakaway static lines for unilateral training loads (reference message 220904Z October 96).

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130E	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE *(Feet)* 1100 MSL	10. ACFT SPEED *(Knots)* 140	11. DZ ELEVATION *(Feet)* 475	12. SURFACE WINDS *(Knots)* CALM	13. VISIBILITY *(Feet/Miles)* 7+

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 840 LBS	24. RIGGED IAW *(TM/TO/NAVAIR No.)* FM 10-500-3/ TO 13C7-1-11 CHAPTER 10	25. AERIAL DELIVERY SYSTEM USED DUAL RAIL:	X CDS RELEASE GATE	OTHER *(Explain)* CVR
		NO. PLATFORMS	NO. CONTAINERS 5	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-Foot High-Velocity/1	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT Pulley: FS 617 Gate: FS 680

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

This malfunction occurred on a day formal training unit (FTU) local training mission dropping two 5-bundle CDS loads on separate passes across the DZ. On the second pass, the third bundle that exited the aircraft failed to open. The load was destroyed; however, there was no other damage or any injury to personnel.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

This report covers three different malfunctions consisting of two 5-bundle CDS loads and a single CDS. These bundles were rigged using the old high-velocity procedures; thus, before the published release of TO 13C7-1-11, change 1 and TO 1C-130A-9. The rigging was correct for breakaway static lines both internally in the parachute and on the aircraft. Investigations on the drop zone revealed that the 26-foot cargo parachute's center bag closing tie did not break.

CONTINUED ON NEXT PAGE

ANALYSIS: 7

WHAT WAS THE MALFUNCTION?

The 26-foot high-velocity parachute failed to deploy.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Breakaway tie broke (static line) first causing the primary bag closing tie not to break.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Use non-breakaway static lines for unilateral training loads (reference message 220904Z October 96).

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130E	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE (*Feet*) 1000 FT AGL	10. ACFT SPEED (*Knots*) 125 KNOTS	11. DZ ELEVATION (*Feet*) 6 FT Above Sea Level	12. SURFACE WINDS (*Knots*) 11 KNOTS	13. VISIBILITY (*Feet/Miles*) UNLIMITED

III. CARGO				
23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (*TM/TO/NAVAIR No.*)	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	X CDS RELEASE GATE	OTHER (*Explain*)
CDS Training Load 850 LBS	FM 10-500-3/ TO 13C7-1-11	NO. PLATFORMS N/A	NO. CONTAINERS 1	N/A
26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
N/A	2 X G-14	N/A	N/A	N/A

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

This load exited the aircraft normally. However during the elongation of the parachutes on the deployment phase, the 120-inch connector straps broke at the L-bar connector link. This caused the load to free fall to earth totally destroying the CDS load.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

This malfunction was a result of faulty stitching on the 120-inch connector strap. It could be because of the equipment's age, amount of usage, or thread dry rot.

CONTINUED ON NEXT PAGE

ANALYSIS: 8

WHAT WAS THE MALFUNCTION?

120-inch connector strap broke at L-bar connector link.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Faulty stitching.
2. Failing to use a G-13 clevis.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Follow correct rigging procedures.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130E	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 475	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 948	12. SURFACE WINDS (Knots) 330/8	13. VISIBILITY (Feet/Miles) 10 MILES

III. CARGO					
23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED			
CDS Training Load 990 LBS	FM 10-500-3/ TO 13C7-1-11 CHAPTER 9		DUAL RAIL	X CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS N/A	NO. CONTAINERS 1		N/A
26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT	
A-22	G-13/2	N/A	N/A	FS 530	

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Static line retriever malfunctioned at green light. Guillotine knife safety tie did not break and type XVII nylon release gate did not cut. Load master performed a manual gate cut and the load exited normally.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Faulty static line retriever. Retriever was tested using an actual CDS training load on the ground and malfunctioned when the retriever cable pulled taut. A faulty microswitch was found to be the problem.

CONTINUED ON NEXT PAGE

ANALYSIS: 9

WHAT WAS THE MALFUNCTION?

The release gate failed to cut.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The left hand static line retriever was found to be defective causing it to shut off after 1 second of activation.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure break test for static line retriever is conducted during preflight.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130H	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 785 AGL	10. ACFT SPEED (Knots) 140 KLS	11. DZ ELEVATION (Feet) 1020 FT	12. SURFACE WINDS (Knots) 10 KNOTS	13. VISIBILITY (Feet/Miles) Unlimited

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11 CHAPTER 9	25. AERIAL DELIVERY SYSTEM USED DUAL RAIL:	X CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER MC-1150	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 700

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

During a container delivery system airdrop using two 10,000 chains and one 10,000 device as an alternate forward barrier, the hook end of the connecting chain became entangled with the skid board ties, and upon release of the gate the load failed to exit.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Due to the recent changes to TO 1C-130A-9, the hook end of the 10,000 chain failed to be taped thus causing the hook to become entangled with the skid board ties, and upon release of the gate load failed to exit.

CONTINUED ON NEXT PAGE

ANALYSIS: 10

WHAT WAS THE MALFUNCTION?

Load failed to exit.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Hook end of 10,000 pound chain entangled with skid board ties.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Submit 2028 tapping the hook portion of the 10,000 pound chain.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130E	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 650 AGL	10. ACFT SPEED (Knots) 140	11. DZ ELEVATION (Feet) 475	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles) CLEAR

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 10,044	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11 CHAPTER 10	25. AERIAL DELIVERY SYSTEM USED DUAL RAIL:	X CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 10	CVR
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26' HV/1	28. SIZE EXTRACTION/RELEASE PARACHUTE N/A	29. LENGTH OF REEFING LINE N/A	30. POSITION OF LOAD IN AIRCRAFT Pulley: FS 617 Gate: FS 680

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

This malfunction occurred on a day formal training unit (FTU) local mission dropping a 10-bundle CDS load in a double 5-stick configuration. The parachutes on the 4th bundle (right side) and the last bundle (left side) to exit the aircraft failed to open. The load was destroyed; however, there was no other damage

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

These bundles were rigged using the procedures in TO 13C7-1-11, change 1 and TO 1C-130A-9. The rigging was correct for breakaway static lines both internally in the parachute on the aircraft. Investigations on the drop zone revealed that the 26-foot cargo parachute's center bag closing tie did not break on one bundle, and on the other no ties broke at all.

CONTINUED ON NEXT PAGE

ANALYSIS: 11

WHAT WAS THE MALFUNCTION?

The 26-foot high-velocity parachute failed to deploy.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The breakaway tie broke (static line) first causing the primary bag closing tie not to break.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Use non-breakaway static lines for unilateral training loads (reference message 220940Z Oct 96).

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130E	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 650 AGL	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 540	12. SURFACE WINDS (Knots) CALM	13. VISIBILITY (Feet/Miles) CLEAR

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 890 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11 CHAPTER 10	25. AERIAL DELIVERY SYSTEM USED DUAL RAIL:	X CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1 of 5	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26' HV/1	28. SIZE EXTRACTION/RELEASE PARACHUTE N/A	29. LENGTH OF REEFING LINE N/A	30. POSITION OF LOAD IN AIRCRAFT Pulley: FS 617 Gate: FS 677

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

This was a five bundle drop. The number 5 bundle exited aircraft normally. All ties broke and the parachute came out of the bag but never opened. The load was destroyed.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

The possible cause was air starvation.

CONTINUED ON NEXT PAGE

ANALYSIS: 12

WHAT WAS THE MALFUNCTION?

Parachute failed to inflate

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Possible air starvation.
2. Improper packing procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure proper packing procedures are followed.

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130E	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (*Feet*)	10. ACFT SPEED (*Knots*)	11. DZ ELEVATION (*Feet*)	12. SURFACE WINDS (*Knots*)	13. VISIBILITY (*Feet/Miles*)
650 AGL	130	540	CALM	CLEAR 7+

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (*TM/TO/NAVAIR No.*)	25. AERIAL DELIVERY SYSTEM USED			
			DUAL RAIL	X CDS RELEASE GATE	OTHER (*Explain*)
CDS 900 LB	FM 10-500-3/ TO 13C7-1-11 CHAPTER 10	NO. PLATFORMS	NO. CONTAINERS		

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
A-22	26' HV/1.	N/A	N/A	Pulley: FS 617 Gate: FS 677

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Malfunction occurred on the second pass dropping the five-bundle CDS. The number 3 bundle in the stick never got a good parachute. The load was destroyed.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

The center 80 pound bag closing tie never broke. The cause is unknown.

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ANALYSIS: 13

WHAT WAS THE MALFUNCTION?

The 26-foot high-velocity parachute failed to deploy.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The breakaway tie broke (static line) first causing the primary bag closing tie not to break.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Use non-breakaway static lines for unilateral training loads (reference message 220940Z Oct 96).

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130H	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (*Feet*)	10. ACFT SPEED (*Knots*)	11. DZ ELEVATION (*Feet*)	12. SURFACE WINDS (*Knots*)	13. VISIBILITY (*Feet/Miles*)
650 AGL	130	540	CALM	CLEAR 7+

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (*TM/TO/NAVAIR No.*)	25. AERIAL DELIVERY SYSTEM USED			
			DUAL RAIL	X CDS RELEASE GATE	OTHER (*Explain*)
CDS 900 LBS	FM 10-500-3/ TO 13C7-1-11 CHAPTER 10	NO. PLATFORMS	NO. CONTAINERS		

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
A-22	26' HV/1	N/A	N/A	Pulley: FS 530 Gate: FS 550

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The load exited the aircraft normally but the parachute never opened. The load was destroyed.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

No 80 pound ties were broken on the load including the parachute restraint ties. The gutted 550 cord broke before the other ties.

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ANALYSIS: 14

WHAT WAS THE MALFUNCTION?

The 26-foot high-velocity parachute failed to deploy.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The breakaway tie broke (static line) first causing the primary bag closing tie not to break.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Use non-breakaway static lines for unilateral training loads (reference message 220940Z Oct 96).

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130H	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
517	130	23	CALM	UNRESTRICTED

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED			
			DUAL RAIL	X CDS RELEASE GATE	OTHER (Explain)
LV CDS 1125 LBS	FM 10-500-3/ TO 13C7-1-11	NO. PLATFORMS N/A		NO. CONTAINERS 1	NON-CVR

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
A-22	G-12E - 1 EA	68" Pilot Parachute	N/A	FS 530

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

At green light, retriever activated for approximately 2 seconds. RH S/L retriever failed to cut the release gate or 80 pound safety tie.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

During post mission analysis, the primary loadmaster activated S/L retriever for pull test using standard CDS procedures. The winch failed this test afater running for approximately 2 seconds and failing to cut the 80 pound safety tie. Maintenance removed and replaced the defective S/L retriever.

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ANALYSIS: 15

WHAT WAS THE MALFUNCTION?

The release gate failed to cut.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The left hand static line retriever was found to be defective causing it to shut off after 1 second of activation.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure break test for static line retriever is conducted during preflight.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C212	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (*Feet*) 450 FEET	10. ACFT SPEED (*Knots*) 110 KNOTS	11. DZ ELEVATION (*Feet*) 123 FEET	12. SURFACE WINDS (*Knots*) CALM	13. VISIBILITY (*Feet/Miles*) CLEAR 7 MILES

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS/760 LBS	24. RIGGED IAW (*TM/TO/NAVAIR No.*) FM 10-500-3/ TO 13C7-1-11 CHAPTER 10	25. AERIAL DELIVERY SYSTEM USED DUAL RAIL:	X	CDS RELEASE GATE / OTHER (*Explain*)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G-12E/1	28. SIZE EXTRACTION/RELEASE PARACHUTE N/A	29. LENGTH OF REEFING LINE N/A	30. POSITION OF LOAD IN AIRCRAFT

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The load exited the aircraft normally. During the deployment phase, everything was on track. The parachute was in the deployment phase when the load impacted the ground. As a result, the CDS bundle had a small amount of damage. The skid board was destroyed along with the G-12D bag due to impact with the ground.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

The drop zone malfunction NCO noted that when the CDS bundle exited the aircraft, the aircraft was flying lower than the prior drop. Upon investigation, it was noted that everything was going according to order only 8-80 pound ties broke during the deployment phase. Due to the quick impact, the deployment phase was incomplete.

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ANALYSIS: 16

WHAT WAS THE MALFUNCTION?

The parachute did not complete the deployment phase.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The aircraft was flying lower than the noted 450 feet.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Maintain altitude.
2. Improve crew resource management.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (*Feet*) 600 FEET	10. ACFT SPEED (*Knots*) 130	11. DZ ELEVATION (*Feet*) 45 FEET	12. SURFACE WINDS (*Knots*) 6 KNOTS	13. VISIBILITY (*Feet/Miles*) 5 MILES

III. CARGO				
23. TYPE LOAD AND WEIGHT A-22 1100 LBS	24. RIGGED IAW (*TM/TO/NAVAIR No.*) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED DUAL RAIL:	X CDS RELEASE GATE	OTHER (*Explain*)
		NO. PLATFORMS	NO. CONTAINERS 4	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 1 EA G-12	28. SIZE EXTRACTION/RE-LEASE PARACHUTE N/A	29. LENGTH OF REEFING LINE N/A	30. POSITION OF LOAD IN AIRCRAFT 4 of 4

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The extraction phase of the drop was normal. From the ground, the four CDS bundles were observed as follows: Bundle number 1 functioned normally with no interaction. Bundles number 2 and 3 collided during deployment also while descending resulting in some damage to one of the G-12 canopies; nevertheless, they separated and landed normally. The fourth bundle also extracted normally; however, when the pilot parachute deployed, it malfunctioned until the bundle impacted the ground. One side of the pilot parachute's canopy appeared pulled down limiting the parachute's ability to inflate causing the parachute to spin continuously during descent. As observed, possibly one or two suspension lines were wrapped around the L-bar connector link which connects the suspension lines to the 111-inch deployment line. The G-12 did not break away until impact, deploying three stows of the suspension lines. There was damage to the G-12's deployment bag, but none to the canopy itself. All the sand boxes were destroyed to include three of thirty cots that were enclosed. The A-22 cargo bag is beyond ecomonical repair.

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32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

All material was returned to the rigging facility where they were inspected. Upon inspection of both the pilot and G-12 parachutes, it could not be determined the cause of the malfunction. There were no burns, frays or indications of the pilot parachutes suspension lines being entangled, neither was the G-12 found with discrepancy. Since the pilot parachute's suspension lines were suspected because of the appearance during decent, the attention was focused there. Eight 68-inch pilot parachutes in the shop were checked for packing procedures where two were found without a rubber retainer band securing the suspension lines; therefore, the possibility exist that the subject pilot parachute may have been packed the same way. Without the rubber retainer band to control the suspension lines during deployment, they could have tangled with the L-bar connector link causing this malfunction. All 68-inch pilot parachutes were removed from the shelves to be checked.

ANALYSIS: 17

WHAT WAS THE MALFUNCTION?

G-12 failed to deploy.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper packing procedures of pilot parachute.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Follow established packing procedures.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-17A	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE *(Feet)* 927 AGL	10. ACFT SPEED *(Knots)* 145 KTS	11. DZ ELEVATION *(Feet)* 289	12. SURFACE WINDS *(Knots)* 110 @ 4 KTS	13. VISIBILITY *(Feet/Miles)* CLEAR

III. CARGO					
23. TYPE LOAD AND WEIGHT	24. RIGGED IAW *(TM/TO/NAVAIR No.)*	25. AERIAL DELIVERY SYSTEM USED			
			DUAL RAIL	X CDS RELEASE GATE	OTHER *(Explain)*
CDS APPR 1000	FM 10-500-3/ TO 13C7-1-11	NO. PLATFORMS	NO. CONTAINERS 1		GRM position 4
26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT	
A-22	1 G-12E	N/A	N/A	FS 1000 1 of 1	

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

At green light the release gate failed to release ADSC logic set on number 4 position or using the CDS hardwired backup switch. Load failed to exit aircraft.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

GRM failed to release. GRM tested okay on preflight. CDS ARM and ADS ARM extinguished as required at green light. CDS backup switch used without effect. TACTICS ASSESSMENT: Upon arrival of aircraft, no aircraft rigging or procedural errors were observed. The primary loadmaster briefed the event as described above without deviation. Under my direction, the aircraft crew chief and maintenance pro-super performed the following preliminary checks. The maintenance team observed the primary loadmasters attempts to duplicate the malfunction. Using procedures contained in AMCI 11-217 VOL 24 (CDS checklist) the malfunction was duplicated on the ground. The CDS gate failed to release using the ADSC logic and the CDS backup switch. This led the team to suspect that either the electrical cable supplying power to the GRM was malfunctioning or the GRM solenoid was bad. Using the electical power cable from the number 3 GRM position on the suspect GRM released normally, leading one to believe a faulty power cable was the cause. he suspect power cable was then connected to the number 3 GRM and it released the GRM normally. Upon closer inspection, it was observed that the number 4 (suspect GRM) solenoid plunger would bind when cocking or decocking. This can result in intermittent retract/engage positioning resulting in failure of the GRM to release. CASUAL: GRM solenoid linkage binding (metal to metal) resulting in failure to allow full travel of the GRM mechanism. PQDR being submitted to SPO for remedies.

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ANALYSIS: 18

WHAT WAS THE MALFUNCTION?

C-17 aircraft gate failed to release.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Equipment failure.
2. GRM failed to release.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Awaiting answer from PQDR that was submitted.

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-17A	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
800 FT AGL	145	1505	170 @ 10	7+ MILES

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED			
			DUAL RAIL	X CDS RELEASE GATE	OTHER (Explain)
TNG LOADS 2100 LBS COMBINED	FM 10-500-3/ TO 13C7-1-11	NO. PLATFORMS: N/A		NO. CONTAINERS: TWO	

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
A-22 CONTAINER	ONE G-12E EACH	N/A	N/A	FUSELAGE STATION 1050

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

All aircraft operations were normal up until the "green light", when the gate release mechanism (GRM) failed to release the gate by both the computer and the CDS back-up switch. Malfunction procedures were initiated and completed without incident. No damage occurred.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

After landing, the aircraft and load were inspected and the malfunction was duplicated. During the investigation, some "clicking" could be heard in the area of the GRM electrical cable and when the cable was touched the GRM worked. The GRM electrical cable was then replaced and the GRM worked properly in both airdrop modes with no further problems. The bad electrical cable was taken to maintenance for inspection. Follow-up revealed that the cable connector on the GRM end had been cocked or cross-threaded when plugged into the GRM, thus bending some of the cannon plug causing a bad connection.

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ANALYSIS: 19

WHAT WAS THE MALFUNCTION?

C-17 aircraft gate failed to release.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Faulty GRM electrical cable.
2. Bent plug pins caused a bad connection.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Awaiting answer from submitted PQDR.

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130H	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
600' AGL	130 KNOTS	4225' MSL	320 @ 4 KNOTS	7+ MILES

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED			
			DUAL RAIL	X CDS RELEASE GATE	OTHER (Explain)
H/V CDS 850 LBS	FM 10-500-3/ TO 13C7-1-11 CHAPTER 9	NO. PLATFORMS	NO. CONTAINERS ONE		

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
A-22 CONTAINER	26' Ringslot/1	N/A	N/A	Approx. FS 666

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Following the "green light" execute order over the drop zone, the retriever winch operated for 3 seconds, but failed to break the release knife's 80 pound cotton webbing safety tie. Thus, failing to cut the Type XXVI release gate. The retriever winch shut off after 3 seconds and the CDS remained secured in it's original position in the aircraft. A "malfunction" was initiated by the primary aircraft loadmaster. The CDS was secured for landing. There was no damage to load or aircraft.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

The release knife was rigged for a CVR side cut configuration and positioned near the top of the release gate inside length angle. The release knife was found to have an excess of duct tape securing the swivel arm nut at the top of the knife bell. The taped nut caught on the 1/2-inch tubular nylon double X skid board tie adjacent to the release gate. All the retriever pull was applied from the nut at the top of the knife bell to the 1/2-inch tubular nylon. Although the winch cable was taut, no force was applied to the 80 pound safety tie. After 3 seconds of attempting to pull against the 1/2-inch tubular nylon, the retriever winch shut off. The cup was seated and the beaded chains were of proper length on the retriever winch. A timer check and strength check was conducted on the retriever with no discrepancies found.

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ANALYSIS: 20

WHAT WAS THE MALFUNCTION?

Release gate failed to cut.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The taped nut on the knife bell was caught on the skid board ties.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Follow proper rigging procedures.

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130E	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (*Feet*)	10. ACFT SPEED (*Knots*)	11. DZ ELEVATION (*Feet*)	12. SURFACE WINDS (*Knots*)	13. VISIBILITY (*Feet/Miles*)
475 AGL	130 KNOTS	817 FT	110/8	10 N/M

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (*TM/TO/NAVAIR No.*)	25. AERIAL DELIVERY SYSTEM USED			
			DUAL RAIL	X CDS RELEASE GATE	OTHER (*Explain*)
CDS 890 LBS	FM 10-500-3/ TO 13C7-1-11 CHAPTER 9	NO. PLATFORMS	NO. CONTAINERS		
		N/A	1		N/A

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
A-22	G-13 X 2	N/A	N/A	FS 530

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Malfunction occurred as the load was exiting the aircraft. At green light, the static line retriever actuated and cut the Type XXVI nylon release gate. After the guillotine knife cut the Type XXVI, it flew up and struck the pulley assembly breaking the safety wire securing the pulley to the clevis. The pulley and knife assemblies then fell directly on top of the bundle. The secondary loadmaster then attempted to pull the pulley and knife assemblies off the load but became tangled on the left G-13 parachutes. As the load began to exit the aircraft, the retriever cable pulled the G-13 parachute breaking the two 5-cord ties. The G-13 then fell over the forward edge of the bundle and was hanging by the clustering ties freeing the pulley and knife assemblies. The load exited and both G-13 parachutes deployed. There was no damage to the load, aircraft or personnel.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

The guillotine knife struck the pulley assembly breaking the safety wire securing the pulley to the clevis allowing the pulley and knife assemblies to fall on the load.

CONTINUED ON NEXT PAGE

ANALYSIS: 21

WHAT WAS THE MALFUNCTION?

(Unique) Guillotine knife struck the pulley assembly breaking the safety wire that secures the pulley to the clevis.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Guillotine knife struck the pulley assembly breaking the safety wire securing the pulley to the clevis allowing the pulley and knife assemblies to fall on the load.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Need to establish procedures for proper use, storage, and maintenance of CDS kits.

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
450 AGL	130	335 ASL	CALM	UNRESTRICTED

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED			
			DUAL RAIL	X CDS RELEASE GATE	OTHER (Explain)
CDS 1940 LBS	FM 10-500-3/ TO 13C7-1-11	NO. PLATFORMS	NO. CONTAINERS		
			8		CVR

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
A-22	1 X G-12E	68" PILOT	N/A	FS 350

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The load was second to last on exit. During deployment, the G-12 separated from the load and the load was destroyed. One suspension web was torn apart and the webbing on the other three sides of the A-22 tore apart where the free sliding D-rings are located. The suspension web tore approximately 17 1/2-inches above the snap connector.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

The suspension web could have come in contact with the edge of the load causing teh tear. Another factor could be weakened material. Air items at JRTC stay in the field normally throughout the rotation (approximately 12-14 days) and are exposed to various weather conditions (rain, sun, etc.) with very little effort given to properly recover and secure these air items due to other missions and so on in the "war" scenario. In addition, the A-22s are used extensively for sling load once they have been dropped. These air items are inspected during turn-in and again prior to rigging. I contributed the cause to weakened material and the suspension web coming in contact with the edge of the load. When the suspension web broke, the force caused the other three sides to snap.

CONTINUED ON NEXT PAGE

ANALYSIS: 22

WHAT WAS THE MALFUNCTION?

G-12 separated from load.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Suspension web came into contact with load.
2. Material not serviceable.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Perform proper inspections.

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130E	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (*Feet*)	10. ACFT SPEED (*Knots*)	11. DZ ELEVATION (*Feet*)	12. SURFACE WINDS (*Knots*)	13. VISIBILITY (*Feet/Miles*)
425' AGL	130 KIAS	267' MSL	4 KNOTS	5 MILES

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (*TM/TO/NAVAIR No.*)	25. AERIAL DELIVERY SYSTEM USED			
			DUAL RAIL	X CDS RELEASE GATE	OTHER (*Explain*)
CDS 1228 LBS	FM 10-500-3/ TO 13C7-1-11	NO. PLATFORMS	NO. CONTAINERS 1		

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
A-22	G-12E/1	68" PILOT PARACHUTE		PULLEY FS: 550 CDS GATE: 515

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The static line retriever rewound for 3 seconds without the guillotine knife cutting the Type XXVI release gate. During the manual gate cut, the 95 inch pulley strap stitching broke loose.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

The Type XXVI release gate folded across the 80-pound cotton webbing safety tie before breaking and landing flat across the guillotine knife blade.

CONTINUED ON NEXT PAGE

ANALYSIS: 23

WHAT WAS THE MALFUNCTION?

Gate failed to cut.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Tension loosened on Type XXVI folding it over and the 95-inch pulley strap stitching broke loose.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Perform proper inspections.

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130E	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (*Feet*)	10. ACFT SPEED (*Knots*)	11. DZ ELEVATION (*Feet*)	12. SURFACE WINDS (*Knots*)	13. VISIBILITY (*Feet/Miles*)
500' AGL/1960' MSL	130 KIAS	1460' MSL	CALM	5 KM

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (*TM/TO/NAVAIR No.*)	25. AERIAL DELIVERY SYSTEM USED			
			DUAL RAIL	X CDS RELEASE GATE	OTHER (*Explain*)
CDS 1228 LBS	FM 10-500-3/ TO 13C7-1-11	NO. PLATFORMS	NO. CONTAINERS		
			1		

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
A-22	G-12E/1	68" PILOT PARACHUTE		PULLEY FS: 530 CDS FS: 500

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The static line retriever rewound for 3 seconds without the guillotine knife cutting the Type XXVI release gate.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Insufficient tension on the release gate was the cause of the malfunction. The water filled plastic drums had difficulty maintaining its structural integrity when the release gate was applied.

CONTINUED ON NEXT PAGE

ANALYSIS: 24

WHAT WAS THE MALFUNCTION?

Release gate failed to cut after the retriever activated

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The CDS container was crushed by the force exerted from the Type XXVI causing insufficient tension on the release gate.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Add a load spreader.
2. Ensure CDS bundles are built properly.

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130E	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
650 AGL	140	372	220/9	6 MILES

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED			
			DUAL RAIL	X CDS RELEASE GATE	OTHER (Explain)
CDS/ 975	FM 10-500-3/ TO 13C7-1-11 CHAPTER 10	NO. PLATFORMS	NO. CONTAINERS 4		

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
A-22	26' HV/1	N/A	N/A	PULLEY: FS 617 GATE: FS 737

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

This malfunction occurred on a night formal training unit (FTU) local mission dropping a 4-bundle CDS load in a 2 by 2 configuration. After the release point, one of the 26-foot parachutes failed to fully inflate. The bundle was destroyed, however, there was no damage to the aircraft, other equipment, or nay injury to personnel.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

An investigation of the 16-foot parachutes found 12 suspension lines broken (lines 2, 3, 4, 5, 7, 10, 11, 13, 14, 20, 22, 24). The point that the suspension lines broke varied in length (60 inches to 55 inches from the bottom of the parachute skirt). None of the broken lines had any evidence of pieces of skid board in them. Three suspension lines had evidence of burn marks along the lines indicating that something cut or rubbed against them. The rest of the suspension lines showed evidence of snapping under excessive pressure. What cut the lines was never determined; however, a suspension web on the bundle was found to have a missing spring clip. This is not a contributing factor in this malfunction. We believe that as the bundle tumbled off the ramp, the three suspension lines cut on the bundle, or that during the deployment phase the lines cut on another bundle. The loss of these lines resulted in the snapping of the other lines during opening shock. This parachute had only been dropped seven times.

CONTINUED ON NEXT PAGE

ANALYSIS: 25

WHAT WAS THE MALFUNCTION?

26-foot high-velocity failed to fully inflate.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Suspension lines cut on the bundle during deployment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Follow proper rigging procedures.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141B	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (*Feet*) 615 MSL	10. ACFT SPEED (*Knots*) 150	11. DZ ELEVATION (*Feet*) 190	12. SURFACE WINDS (*Knots*) 270/8	13. VISIBILITY (*Feet/Miles*) Unrestricted

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1000 LBS	24. RIGGED IAW (*TM/TO/NAVAIR No.*) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED DUAL RAIL:	X CDS RELEASE GATE	OTHER (*Explain*)
		NO. PLATFORMS	NO. CONTAINERS 4	
26. TYPE PLATFORM/AIR-DROP CONTAINER CDS BUNDLE	27. TYPE PARACHUTE AND NUMBER 1 G-12E	28. SIZE EXTRACTION/RELEASE PARACHUTE N/A	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 1300 LEFT SIDE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Bundle hung up then later exited after red light, before the malfunction checklist could be completed.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

CONTINUED ON NEXT PAGE

ANALYSIS: 26

WHAT WAS THE MALFUNCTION?

Bundle hung up, then exited.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Insufficient information.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Insufficient information.

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130H	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
1000	140	23	CALM	7 MILES

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED			
		X DUAL RAIL	. CDS RELEASE GATE	OTHER (Explain)	
HEAVY EQUIPMENT 3200 LBS	FM 10-512/ TO 13C7-1-8 FM 10-500-2/ TO 13C7-1-5	NO. PLATFORMS 1	NO. CONTAINERS N/A	EFTC	

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
8' TYPE V	G-12E - 2 EA	15'	N/A	FS 420

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Loose platform prior to green light. Prior to loadmaster acknowledging 1 minute warning, platform began to slowly roll aft Emergency procedures were initated and the drop was aborted. No further attempt was made to drop the load.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

RH number 3 lock was set at 2.5 and failed prior to the drop. Maintenance performed a thorough check of the lock and did not find any discrepancies. Pressure test was good. Suspect that the finger did not remain between the roller or lock was not set properly using the correct guide mark.

CONTINUED ON NEXT PAGE

ANALYSIS: 27

WHAT WAS THE MALFUNCTION?

Platform became free floating prior to a green light.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

This is a trend area. Aircrew visual check (concur).

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Possible trend identified.
2. Have MADGCOM tactics office/maintenance investigate possible lock problems.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130E	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (*Feet*) 1480 AGL	10. ACFT SPEED (*Knots*) 130	11. DZ ELEVATION (*Feet*) 540	12. SURFACE WINDS (*Knots*) 050/10	13. VISIBILITY (*Feet/Miles*) 6 MILES

III. CARGO				
23. TYPE LOAD AND WEIGHT HE MASS LOAD 2710 LBS	24. RIGGED IAW (*TM/TO/NAVAIR No.*) FM 10-512/ TO 13C7-1-8 CHAPTER 11	25. AERIAL DELIVERY SYSTEM USED X DUAL RAIL . CDS RELEASE GATE OTHER (*Explain*) NO. PLATFORMS: 1 NO. CONTAINERS:		
26. TYPE PLATFORM/AIR-DROP CONTAINER TYPE V	27. TYPE PARACHUTE AND NUMBER G-12E/2	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-FOOT/EFTC	29. LENGTH OF REEFING LINE N/A	30. POSITION OF LOAD IN AIRCRAFT FS 425

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

This malfunction occurred on a day formal training unit local mission dropping a single heavy equipment. When the loadmaster unlocked the left hand locks during the pre-slowdown checklist, the right hand lock holding the platform in place failed. The platform rolled aft to the ramp crest and the loadmasters performed their emergency checklist IAW MCR 55-130V2. There was no damage to aircraft, equipment or injury to personnel.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

An investigation at the aircraft found the right hand lock fully extended with the finger between the rollers. The pressure check and inspection of the lock by the dual rail shop found abnormalities. The number 5 lock has been the preferred lock by students at the FTU for about a year; consequently, this means it has had a greater number of drops than is normal. This platform was no-dropped for (weather) on its first TOT and then the aircraft came in for a full stop landing before the malfunction occurred. Both the instructor and primary student loadmasters visually checked the number 5 right hand lock three times before the malfunction; the before takeoff checks, the after takeoff checks, and the pre-slowdown checks. The instructor loadmaster stated that the pilot did jockey the throttles a little, which allowed the platform to rock back and forth in the aircraft, before the malfunction occurred.

CONTINUED ON NEXT PAGE

ANALYSIS: 28

WHAT WAS THE MALFUNCTION?

Platform became free floating upon removal of left hand locks.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Left hand locks were removed causing a loose platform. This is identified as a trend area. Aircrew visual check.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Possible trend identified. Have MADGCOM tactics office/maintenance investigate possible lock procedures.

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130H	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
860' MSL	140 KIAS	190'	CALM	10 SM

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED			
		X DUAL RAIL	. CDS RELEASE GATE	OTHER (Explain)	
HEAVY EQUIPMENT 3200 LBS	TM 10-1670-278-23&P/ TO 13C5-26-21	NO. PLATFORMS	NO. CONTAINERS		
		1	N/A	N/A	

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
TYPE V 8 FOOT	2 G-12D	15-FOOT	N/A	FS 520

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Extraction parachute fell on ramp and remained there at green light time. Negative damage to equipment or personnel.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

A conclusive cause for this malfunction could not be determined or reconstructed from the evidence available to the review panel. Suspect that the pendulum line may have been improperly attached to the extraction parachute.

CONTINUED ON NEXT PAGE

ANALYSIS: 29

WHAT WAS THE MALFUNCTION?

Extraction parachute fell to the ramp upon activation.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Concur. Possible improper tension or tying of the pendulum line.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

During JAI procedures, a physical removal of tape and inspection should occur.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130H	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 650 AGL	10. ACFT SPEED (Knots) 140	11. DZ ELEVATION (Feet) 120	12. SURFACE WINDS (Knots) CALM	13. VISIBILITY (Feet/Miles) UNLIMITED

III. CARGO				
23. TYPE LOAD AND WEIGHT HEAVY EQUIP- MENT 8-FOOT 2775 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-2/ TO 13C7-1-5	25. AERIAL DELIVERY SYSTEM USED X DUAL RAIL . CDS RELEASE GATE NO. PLATFORMS: 1 NO. CONTAINERS		OTHER (Explain)
26. TYPE PLATFORM/AIR-DROP CONTAINER TYPE 5	27. TYPE PARACHUTE AND NUMBER G-12D 2 EA	28. SIZE EXTRACTION/RE-LEASE PARACHUTE 15-FOOT	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 600

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

During a local mission sortie airdropping a single heavy equipment load, at the completion of the pre-slowdown checklist when L/H rail locks are retracted, the 8-foot platform rolled aft. It stopped with the aft edge against the cargo ramp (FS 737). No damage was incurred. All emergency procedures were completed then the aircraft returned to base.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Aircrew procedures were extensively debriefed and reviewed, no problems noted. JAI procedures were debriefed and reviewed, no problems noted. Maintenance performed an exhaustive test on lock 9 of the A/A32H-4 cargo handling system. It was determined the release spacer did not fully seat with a setting of 2.5. Spacer alignment mark showed it was fully seated plus spacer tension was out of adjustment.

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ANALYSIS: 30

WHAT WAS THE MALFUNCTION?

Platform became free floating upon removal of left hand locks.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Left hand locks were removed resulting in a free floating platform. This is a trend.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Possible trend identified. Have MADGCOM tactics office/maintenance investigate possible internal lock problems.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1500' AGL	10. ACFT SPEED (Knots) 150	11. DZ ELEVATION (Feet) 520' MSL	12. SURFACE WINDS (Knots) 210/7	13. VISIBILITY (Feet/Miles) CLEAR

III. CARGO				
23. TYPE LOAD AND WEIGHT M-49A1 WATER TRAILER/ 7950 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-532/ TO 13C7-3-361	25. AERIAL DELIVERY SYSTEM USED X DUAL RAIL . CDS RELEASE GATE NO. PLATFORMS: 1 NO. CONTAINERS		OTHER (Explain)
26. TYPE PLATFORM/AIR-DROP CONTAINER TYPE V 12-FOOT	27. TYPE PARACHUTE AND NUMBER G-11B (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 22-FOOT	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT STA 1261

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Malfunction occurred between the extraction/deployment phase (transfer). Water trailer was damaged on impact with ground. Slight damage to the tail cone of the aircraft ($800). Aft risers failed to fully extend due to load hanging in vertical position after extraction. Impacted the ground in vertical position. The M49 trailer was a salvaged training load (cost neglible). The main parachutes deployed normally.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Most probable cause was a shift in the center of gravity due to the water trailer most likely not being filled. All the rigging was proper and IAW TO 13C7-3-361. Our loadmasters and JAI were unable to check this after the platform was built by the Marines. Damage to aircraft most likely due to the extraction line.

CONTINUED ON NEXT PAGE

ANALYSIS: 31

WHAT WAS THE MALFUNCTION?

Aft suspension slings failed to fully extend due to load hanging in vertical position after extraction phase.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

A sudden shift in center of gravity.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

A reevaluation of the rigging procedures for FM 10-532. Check older versions of this item of equipment versus newer versions for baffels.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130E	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
900 AGL	140	372	260/10	4000'/7 MILES

III. CARGO				
23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED		
HE MASS LOAD 2785 LBS	FM 10-512/ TO 13C7-1-8 CHAPTER 11	X DUAL RAIL . CDS RELEASE GATE		OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
TYPE V	G-12E/2	15-FOOT/EFTC	N/A	FS 580

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

This malfunction occurred on a day formal training unit (FTU) local mission dropping a heavy equipment mass load. At green light, the extraction system worked normally; however, the extraction force never transferred to the deployment phase. The load was destroyed. There was no damage to the aircraft or injury to personnel.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

An investigation on the DZ revealed that the EFTC did not release until the load impacted on the ground. This fact was supported by both physical evidence and eyewitness account. The load was found upside down with the 8 x 8 timbers shifted to the aft of the platform. This caused the face board to knock the 3-point link out of the latch assembly. The nuts from the 3-point link match indentations found in the face board confirming this fact. The cause for the EFTC not releasing was that the cable at the actuator assembly broke 1 inch from the clevis. It most likely broke when the actuator arm rotated at the end of the aircraft ramp. This cable had been changed out in March 96 and had approximately 26 drops on it. This EFTC had been inspected and compiled with HQ ACC message 021345Z May 96.

CONTINUED ON NEXT PAGE

ANALYSIS: 32

WHAT WAS THE MALFUNCTION?

Extraction force transfer coupling failed to transition into deployment phase. EFTC cable broke approximately 1 inch from the clevis.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Inconclusive due to the amount of information. Possible improper JAI procedure.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Equipment must be reviewed to ensure there are no deficiencies or rigging procedures that are incorrect.

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-17A	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
1100	130	300	07	SCAT. CLOUDS

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED			
		X DUAL RAIL	. CDS RELEASE GATE		OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS		
HVY TRAINING LOAD # 24 2800 LBS	FM 10-512/ TO 13C7-1-8 CHAPTER 11	1	N/A		

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
TYPE V	2 EA G-12E	15-FT DROGUE/ 15-FT EXTRACTION	N/A	FIRST LOAD

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The C-17A was second ship of two ship formation. As the aircraft came over the DZ, a good drogue parachute was observed. At release point, the drogue pulled the extraction parachute out and the load was extracted. After clearing the aircraft, the transfer phase from extraction to deployment did not occur. Result was load #24 fell to the ground with only the 15-foot extraction parachute for recovery.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Failure of EFTC latch release 3-point link which would not allow the transfer phase from extractino to deployment phase to occur. The exact cause of the malfunction is unknown. It seems that something inside of the latch assembly caused the latch to not release correctly. The exact problem could not be found without taking the latch apart. We are sending the latch and actuator assemble to Natick labs for further investigation.

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ANALYSIS: 33

WHAT WAS THE MALFUNCTION?

Extraction force transfer coupling failed to transition into deployment phase.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Loose set screw located internally in the latch.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Equipment needs to be reviewed due to re-occurence.

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-141B	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
700	150	1163	190/11	CLEAR

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED			
		X DUAL RAIL	. CDS RELEASE GATE	OTHER (Explain)	
MASS SUPPLY TRAINING WT 3240	FM 10-512/ TO 13C7-1-8	NO. PLATFORMS: 1	NO. CONTAINERS: 0	SINGLE PLATFORM	

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
8-FOOT TYPE V	2 G-12E	15 FT	N/A	LOCK 10 FS 725

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Platform extracted normally; once clear of aircraft, load partially rotated over and as main parachutes separated from load, the forward suspension sling elongated and caught in the recessed slots on aft end board. Platform landed vertically with EFTC end up and slings still in recessed slots. The 80-pound ties on aft suspension slings remained unbroken, two FWD right lashings were cut 3/4 through, deadman broke and there was minor damage to end boards.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Investigation revealed load lashings slots on end boards were too deep allowing slings to catch not slide over the end boards. Slings caught between deadman and M-1 release.

CONTINUED ON NEXT PAGE

ANALYSIS: 34

WHAT WAS THE MALFUNCTION?

As the main parachutes separated from the item of equipment, the forward suspension slings elongated and caught in the recess slots on the aft end board.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Concur - recess slots cut too large.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure proper rigging procedures.

I. GENERAL

1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130E	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
600' AGL	140 KIAS	1450 MSL	220 @ 05 KNOTS	7 MILES

III. CARGO

23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED			
3500 LBS HE MASS SUPPLY TRAINING LOAD	FM 10-500-2/ TO 13C7-1-5 FM 10-512/ TO 13C7-1-8	X DUAL RAIL	. CDS RELEASE GATE	OTHER (Explain)	
		NO. PLATFORMS	NO. CONTAINERS		
		1	N/A	EFTC	

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
8-FOOT TYPE V	2 EA G-12E	15-FOOT	N/A	FS 657

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Load extracted normally with fully inflated extraction parachute. Main cargo parachutes failed to deploy. The load was suspended by the extraction parachute only until just prior to impact. The training load impacted the DZ at a high rate of speed. All components except the 12-foot EFTC cable are still serviceable since the load impacted at a 90 degree angle to the ground.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

A severe kink in the 12-foot EFTC actuator cable at the actuator attachment point possibly caused the 3-point link not to separate from the latch until just prior to load impact. It is inconclusive whether the kink occurred prior to load exit or during descent. Delayed release of the 3-point link from the EFTC latch assembly prevented the deployment phase from occurring.

CONTINUED ON NEXT PAGE

ANALYSIS: 35

WHAT WAS THE MALFUNCTION?

A severe kink in the release cable resulted in EFTC not transitioning to deployment phase.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Kink in the cable. This is re-occurring.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Equipment serviceability needs to be looked at.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-141B	
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
800 AGL	150	1505	280/10	7 MILES

III. CARGO				
23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED		
		X DUAL RAIL	. CDS RELEASE GATE	OTHER (Explain)
TRAINING LOAD 2850	FM 10-512/ TO 13C7-1-8 CHAPTER 11	NO. PLATFORMS 1	NO. CONTAINERS	

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
TYPE V	2 - G-12E	15 FOOT	N/A	1 OF 2

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

This was the first platform of a two platform sequential. The extraction parachute and line was extracted normally. At this point, the platform did not exit the aircraft. The loadmasters accomplished the malfunction checklist and cut the extraction parachute and line loose. Total loss of extraction parachute and line. Platform was not damaged.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

An investigation was accomlished at the drop zone by the on-site JAI. He retrieved the extraction parachute and line. He found lines 3, 5, 11, 13 on the extraction parachute apex was broken. This could have been caused by the extraction parachute dragging behind the airplane for approximately 3 miles. An investigation of the airplane revealed the platform only moved approximately 1/2 to 2 inches aft and stopped. The left hand locks appeared to be working properly. A left rail lock preflight was accomplished with no rail rigging problems found. The right hand lock number 16 had been overridden. The inspection of the lock showed no problem. We had the lock calibrated and it was within limits according to the TO. An inspection of the platform revealed it was not bowed, bent, or twisted. This was also inspected back at the aerial delivery rigging area. The loadmasters stated during the review board that all locks were out of the platform prior to it being chained down. The actual cause of the platform not moving after the extraction parachute deployed could not be determined at this time.

CONTINUED ON NEXT PAGE

ANALYSIS: 36

WHAT WAS THE MALFUNCTION?

Platform did not exit the aircraft.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Somehow lock was still engaged due to oversight.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure proper procedures are being utilized.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
1260	140' KTS	583'	250/8	10+ MILES

III. CARGO				
23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED		
		X DUAL RAIL	. CDS RELEASE GATE	OTHER (Explain)
MASS SUPPLY 3350 LBS	FM 10-512/ TO 13C7-1-8	NO. PLATFORMS 1	NO. CONTAINERS	

26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RE-LEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
TYPE V	2 G-12E	15-FOOT		STA 600

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Extraction parachute separated from extraction line.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

The Type IV connector link failed or the side plate was not properly seated. The extraction parachute landed on the drop zone intact (it did deploy) with the connector link spool still inside the adapter web.

CONTINUED ON NEXT PAGE

ANALYSIS: 37

WHAT WAS THE MALFUNCTION?

The extraction parachute separated from the extraction line.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Connector link side plate improperly seated.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

JAI procedures must be adhered to.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 750 AGL	10. ACFT SPEED (Knots) 120	11. DZ ELEVATION (Feet) 100	12. SURFACE WINDS (Knots) CALM	13. VISIBILITY (Feet/Miles) UNLIMITED

III. CARGO				
23. TYPE LOAD AND WEIGHT	24. RIGGED IAW (TM/TO/NAVAIR No.)	25. AERIAL DELIVERY SYSTEM USED		
		X DUAL RAIL . CDS RELEASE GATE		OTHER (Explain)
M-149 TRAILER 8300 LBS	FM 10-532/ TO 13C7-3-361	NO. PLATFORMS 2	NO. CONTAINERS N/A	N/A
26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
TYPE V	2 - G-11B	22-FOOT	4 - 16 1/2-FOOT	#1

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

An M-149 water trailer was extracted from a C-130 aircraft, using a 22-foot extraction parachute. The extraction parachute and EFTC system functioned as designed. The deployment phase began and both G-11B parachutes deployed. As the parachute risers and suspension lines elongated, the M-1 release assembly was pulled past the front of the trailer lunette and underneath it. The top of the M-1 release assembly struck the lunette and was held against it, causing the load to be suspended on end, with the rear of the trailer facing downward. The load was suspended partially be the front suspension slings and almost entirely by the riser extensions. The rear suspension slings did not elongate or support the load. The M-149 descended at a normal rate, but impacted the rear of the water tank and rolled onto its side. The M-1 release system functioned as designed. The M-149 water trailer sustained damage to the upper rear portion of the water tank, which was dented but did not crack or burst. There was also damage to both fenders, one of which was crushed when the load rolled after impact. The crushed fender was removed and the M-149 trailer was operational and functional. There was no air delivery items damaged or destroyed.

CONTINUED ON NEXT PAGE

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

The cause of malfunction was the M-1 release assembly being caught under the vehicle lunette, which did not allow the platform to stabilize and the suspension slings to elongate and suspend the load. It is my opinion that the center of the balance for this vehicle as described in the manual, FM 10-532, may be incorrect, as the front of the load dropped rapidly as the parachutes, suspension lines and riser extensions elongated. The M-1 release assembly was caught under the lunette, before the suspension slings could elongate, and carry the release assembly above the load. If the center of balance of this load were to recalculated and additional overhang be allowed, then the M-1 release would be less likely to be caught on the lunette.

ANALYSIS: 38

WHAT WAS THE MALFUNCTION?

Rear suspension slings did not elongate to support the load

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper center of gravity due to rigging procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

A re-evaluation of rigging procedures of FM 10-532. Re-establish the center of gravity.

PERSONNEL MALFUNCTION REPORTS AND ANALYSIS

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE *(Feet)* 800' AGL	10. ACFT SPEED *(Knots)* 130	11. DZ ELEVATION *(Feet)* 70 FT	12. SURFACE WINDS *(Knots)* 3-5 KNOTS	13. VISIBILITY *(Feet/Miles)* UNLIMITED

II. PERSONNEL		
14. NAME *(Last, First, MI)*, GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER LBE, M-16, LARGE ALICE PACK	16. JUMPER'S POSITION IN ACFT 2 ND PASS, #4 RIGHT DOOR

17. TYPE PARACHUTE *(Specify)*	18. TYPE MALFUNCTION								19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER *(SPECIFY)*		
T-10C		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	Broken Static Line		43

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY *(If "No" explain in item 31)*	22. RESULTING INJURY
T-10 Reserve	[X] YES [ ] NO	BACK SPASM

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

As the jumper exited the aircraft, he counted to 4,000. He felt no opening shock. He waited 1 to 2 seconds and activated his reserve for a total malfunction. The reserve opened and hit him in the face and deployed wihtout incident. At this point, his main parachute was off to his right side at eye level and beginning to inflate toward his reserve. The static line had broken 30 inches from the snap hook. The 1/2-inch cotton webbing breakcord tie did not break. The deployment bag and remaining static line remained with parachute. The main bridle loop was still attached to the static line. Burns on riser right side. Burns on right group of suspension lines. Burns on deployment bag. Burns on static line. Burns on Alice pack. T-10 reserve pilot parachute missing. T-10 reserve pack tray stiffener bent.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

It was concluded that the jumper had a misrouted static line under his right set of risers. All burn marks matched up as the pull down sequence was conducted. Statements from the loadmaster and the safety on the rigth door indicated that they heard a loud thump on the outside of the aircraft after the jumper exited the door, and then a loud twang much like a rubber band breaking. This would indicate that the jumper was momentarily towed until the pressure became too great for the static line to withstand. The location of the break in the static line is consistent with that of a temporarily towed jumper. The static line appears to have functioned as designed until forces were applied to such a degree that it broke at its weakest point.

CONTINUED ON NEXT PAGE

ANALYSIS: 39

WHAT WAS THE MALFUNCTION?

Broken static line.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Possible misrouted static line.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Training. Jump proficiency.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE (Feet) 8500 AGL	10. ACFT SPEED (Knots) 135	11. DZ ELEVATION (Feet) 4300 MSL	12. SURFACE WINDS (Knots) 10	13. VISIBILITY (Feet/Miles) UNLIMITED

II. PERSONNEL		
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER MC-4, LBE, WEAPON	16. JUMPER'S POSITION IN ACFT N/A

17. TYPE PARACHUTE (Specify)	18. TYPE MALFUNCTION								19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER (SPECIFY)		
MC-4		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	DUAL CANOPIES		350

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31)	22. RESULTING INJURY
MC-4	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper exited aircraft and was stable until pull altitude 4000-feet AGL. Jumper pulled main canopy at 4000 feet. While jumper checked his main canopy, heard his AOD fire and felt his reserve fall off his back. Jumper's reserve canopy went up and fluttered until it slowly opened. Jumper cut-away his main canopy and landed with his reserve.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

AR2, AOD fired reserve canopy higher than setting altitude. The AR2 setting was 6800-ft MSL, 1500-ft above pull altitude, 8300-ft MSL. The AR2 was taken to another base and rechambered and passed. After talking with USASOC, Natick and the AR2 manufacturer, discovered the AR2 was designed for the jumper to be under a good canopy 1500-feet above the setting on the AR2 not pulling 1500-feet above AR2 settting. This would require jumpers to pull at or above 4500-ft AGL based on USASOC Reg 350-2 which requires that AODs be set at a minimum of 2500-ft AGL. Recommend USASOC Reg 350-2 be changed to allow for a lower AOD setting or mount the AR2 on the main canopy. QDR has been submitted on AR2.

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ANALYSIS: 40

WHAT WAS THE MALFUNCTION?

No malfunction.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Failure to understand equipment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Under review currently.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT CASA 212	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE (Feet) 12,500 FT AGL	10. ACFT SPEED (Knots) 112 KTS	11. DZ ELEVATION (Feet) 480 FT	12. SURFACE WINDS (Knots) 3 KNOTS	13. VISIBILITY (Feet/Miles) UNLIMITED

II. PERSONNEL		
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER MC-4 PARACHUTE SYSTEM	16. JUMPER'S POSITION IN ACFT 1ST PASS/ LAST JUMPER

17. TYPE PARACHUTE (Specify)	18. TYPE MALFUNCTION								19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER (SPECIFY)		
MC-4		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	BROKEN CONTROL LINE		2

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31)	22. RESULTING INJURY
MC-4	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper exited the aircraft at 12,500 ft AGL. At 4,000 feet AGL, the jumper deploys his main canopy and notices that his pilot parachute is tangled with his right control line. Jumper attempts to control his canopy but can only control about 50 percent. He is slowly turning to his right. Jumper decides to cutaway his main cnaopy at approximately 2,500 feet AGL. The reserve canopy deploys properly and jumper lands on the intended drop zone with no further injuries.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

After 100 percent inspection was conducted, there was no damage or abnormalities to the main canopy. Jumper was backsliding at the same time he deployed his main canopy causing pilot parachute to launch at a n angle. This should not be considered a malfunction due to jumper's experience.

CONTINUED ON NEXT PAGE

ANALYSIS: 41

WHAT WAS THE MALFUNCTION?

Pilot parachute tangled with control line.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. :Possible inexperience.
2. Lack of information.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. After action reviews.
2. Better statements from all persons.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE *(Feet)* 12,500 AGL	10. ACFT SPEED *(Knots)* 110 KNOTS	11. DZ ELEVATION *(Feet)* 480 FT	12. SURFACE WINDS *(Knots)* 5 KNOTS	13. VISIBILITY *(Feet/Miles)* UNLIMITED

II. PERSONNEL		
14. NAME *(Last, First, MI)*, GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER MC-4 Parachute System/ Rucksack	16. JUMPER'S POSITION IN ACFT 15th Pass/Last Jumper

17. TYPE PARACHUTE *(Specify)*	18. TYPE MALFUNCTION								19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER *(SPECIFY)*		
MC-4		PILOT CHUTE		BLOWN SECTION	X	BROKEN SUSPENSION LINE	Broken Control Line		08

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY *(If "No" explain in item 31)*	22. RESULTING INJURY
MC-4	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper exited aircraft at 12,500 feet AGL. At 4,000 ft AGL, jumper was unstable and pulled main ripcord. When he checked to clear his pilot parachute, he turned too hard and rolled onto his left side. On opening his right side control line broke in half. Jumper performed controllability check and then decided to cutaway. Jumper was under good reserve canopy by 2,500 feet AGL. Jumper landed on intended drop zone safe and without further incident.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

After 100 percent inspection was conducted, there was a broken control line (right) and no other damage or abnormality was found in the main canopy or MC-4 system. The broken control line was due to the jumper's instability while the main canopy was deploying. A broken control line is considered a partial malfunction.

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ANALYSIS: 42

WHAT WAS THE MALFUNCTION?

Broken control line.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Unstable pull.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. More training.
2. Proper body position.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-141	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
1250	130	Not Given	6	UNLIMITED

II. PERSONNEL		
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER	16. JUMPER'S POSITION IN ACFT
	MAIN RESERVE, ANKLE BRACES	CHALK # 07 JUMPER #10 LEFT DOOR

17. TYPE PARACHUTE (Specify)	18. TYPE MALFUNCTION								19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER (SPECIFY)		
		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	High Alt Entangle		
T-10C									2

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31)	22. RESULTING INJURY
T-10R	☐ YES ☒ NO	BROKEN TOES, BRUISES

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Two jumpers exited simultaneously. Once clearing the aircraft, both jumpers collided. Jumper #1 slipped through jumper #2's suspension lines entangling jumper #1's canopy around jumper #2's equipment. No reserve was activated. Jumper #1 was left door number 10 man. Jumper #2 was right door number 10 man.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Jumpmaster's timing error caused two jumpers to exit from both doors simulatenously.

CONTINUED ON NEXT PAGE

ANALYSIS: 43

WHAT WAS THE MALFUNCTION?

No malfunction. Incident - High altitude entanglement.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper procedures during exit.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Use proper exit procedures.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE (Feet) 12,500 FT AGL	10. ACFT SPEED (Knots) 120 KNOTS	11. DZ ELEVATION (Feet) 480 FEET	12. SURFACE WINDS (Knots) 6-10 KNOTS	13. VISIBILITY (Feet/Miles) UNLIMITED

II. PERSONNEL		
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER MC-4 PARACHUTE SYSTEM	16. JUMPER'S POSITION IN ACFT 6TH JUMPER

17. TYPE PARACHUTE (Specify)	18. TYPE MALFUNCTION								19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER (SPECIFY)		
MC-4 Parachute		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	Broken Control Line		9

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31)	22. RESULTING INJURY
MC-4 Parachute	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

After exiting the aircraft at 12,500 AGL, jumper initiated ripcord pull at 4,000 feet AGL. Jumper had full main canopy deployment. Jumper went to pull down on main toggles and right toggle broke. Jumper tried to control main canopy with rear risers but was unsuccessful. Jumper was in an uncontrollable spin. Jumper performed emergency procedures and deployed reserve parachute above 2,000 feet AGL. Jumper landed on the intended DZ with no further injuries.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

After inspecting the main parachute, damage was found at the finger-trapped loop. Control lines broke at the finger-trapped loop because of excessive use. (Wear and tear) This should be considered a malfunction.

CONTINUED ON NEXT PAGE

ANALYSIS: 44

WHAT WAS THE MALFUNCTION?

Broken control line.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Equipment failure.
2. Improper inspection during pack.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Better supervision during packing.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT CASA 212	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE *(Feet)* 12,500 FT AGL	10. ACFT SPEED *(Knots)* 110 KNOTS	11. DZ ELEVATION *(Feet)* 480 FEET	12. SURFACE WINDS *(Knots)* 6-12 KNOTS	13. VISIBILITY *(Feet/Miles)* UNLIMITED

II. PERSONNEL		
14. NAME *(Last, First, MI)*, GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER MC-4 PARACHUTE SYSTEM	16. JUMPER'S POSITION IN ACFT 18TH/LAST JUMPER

17. TYPE PARACHUTE *(Specify)*	18. TYPE MALFUNCTION										19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER *(SPECIFY)*				
MC-4 Parachute		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	See block IV				12

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY *(If "No" explain in item 31)*	22. RESULTING INJURY
MC-4 Parachute	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper exited the aircraft at 12,500 feet AGL. At approximately 9,000 feet AGL, the jumper felt something bouncing around on his back and wrap around his foot. The instructor saw that the jumper's main pilot parachute and deployment bag was out of the container and bouncing on the jumper's back. The main bridle was around the jumper's foot. At 4,500 feet AGL, the jumper pulled his main ripcord and cleared over his shoulder and attempted to clear the parachute off his back, but was unsuccessful. At approximately 3,000 feet AGl, the jumper performed cutaway procedures and had a good reserve canopy by 2,000 feet AGL. The bridle line on the main deployment untangled from the jumper's foot and fell free from the jumper. The jumper landed safely on the DZ with no injuries.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Upon recovery of the main parachute, a 100 percent inspection was conducted. The main parachute was still in the deployment bag with all the suspension lines unstowed and entangled except the four locking stows which were still stowed and contained the parachute in the deployment bag. Upon inspecting the container, found the main closing loop was broken below the loop at the stitching. The closing loop did not appear to have excess wear. No other damage or abnormalities were found. The jumper was wearing a ruck on the rear. When wearing a ruck on the rear and the jumper is in a flat stable body position, this will cause the air flow around him to create a partial vacuum which prevents the pilot parachute from inflating. The cause of this malfunction was a broken closing loop causing a premature opening of the main container and the ruck interrupted the air flow to create a vacuum, causing a pilot hesitation. The pilot hesitation caused the deployment bag not to lift off the jumper's back and the bridle line to entangle with the jumper's foot.

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ANALYSIS: 45

WHAT WAS THE MALFUNCTION?

Broken control line.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Equipment failure.
2. Improper inspection during pack.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Better supervision during packing.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			CASA 212	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
10,500 FT AGL	110 KTS	480 FT	8 KNOTS	UNLIMITED

II. PERSONNEL		
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER	16. JUMPER'S POSITION IN ACFT
	MC-4 Parachute System with AR2 (AAD), Rucksack	1st Pass/4th Jumper

17. TYPE PARACHUTE (Specify)	18. TYPE MALFUNCTION								19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER (SPECIFY)		
MC-4		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	SEE BELOW		750

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31)	22. RESULTING INJURY
MC-4	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper exited the aircraft at 10,500 feet AGL. At approximately 3,700 feet AGL, the jumper deployed his main parachute while in a stable body position. Jumper performed post-opening procedures and had a good canopy at 3,000 feet AGL. Jumper cleared his air space and disconnected the left side of the rucksack. Jumper made a left hand turn with the parachute and headed toward the DZ. At approximately 2,500 feet AGL, the jumper heard and felt something pop on the container, looked back and seen the reserve parachute was out of the container and started to deploy. Jumper performed procedures for a dual deployment canopy (canopy transfer) and cutaway his main parachute. Jumper had a good reserve parachute and landed on the DZ with no injuries.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

After a 100 percent inspection was conducted on the MC-4 system, no damage or abnormalities were found. During the inspection on the AR2 (AAD), it was found to have actuated. The AR2 altitude dial was set for 2,000 feet. The AR2 was removed and tested in accordance with TM 10-1670-305-13&P and was found to operate within tolerance. The cause of this malfunction was a premature actuation of the AR2. At this time the actuation of the AR2 is unknown. A quality deficiency report (QDR) has been submitted on the AR2.

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ANALYSIS: 46

WHAT WAS THE MALFUNCTION?

No malfunction.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Failure to understand equipment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Under review currently.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-17	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE (Feet) 800	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 508	12. SURFACE WINDS (Knots) 2-3 KNOTS	13. VISIBILITY (Feet/Miles) 7 MILES

II. PERSONNEL		
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER LCE, ALICE W/FRAME, KEVLAR M1950 W/M16	16. JUMPER'S POSITION IN ACFT JUMPER #12 RIGHT DOOR

17. TYPE PARACHUTE (Specify)	18. TYPE MALFUNCTION						19. NO. JUMPS
		SEMI-INVERSION		INVERSION	X	CIGARETTE ROLL	OTHER (SPECIFY)	
T-10C		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	STREAMER	23

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31)	22. RESULTING INJURY
T-10 RES	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Upon exit, the parachute elongated but did not inflate. The jumper activated his reserve parachute for a complete malfunction approximately 150 to 200 feet above the ground. The reserve inflated completely and the jumper landed safely with no injuries. Once the reserve inflated, the main parachute also inflated.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Upon inspection of the main parachute, there were no deficiencies noted on the canopy, anti-inversion net, suspension lines or the risers. The suspension lines had three complete twists. Both canopy release assemblies were still intact and once the twists were removed from the lines, a four line check was performed. The parachute was in proper layout. No burns were found on any of the suspension lines and no debris was found in the anti-inversion net. Quality assurance pull down inspections were performed on 10 parachutes packed by the packer with no deficiencies noted. The anti-inversion net may have entangled with the V-tabs or the old pocket opening bands where they were removed for modification. This would keep the bottom of the lower lateral band closed. Once the reserve was inflated, all of the pressure was released from the entangled net and allowed the main to inflate. Witnesses on the drop zone stated that once the reserve inflated the main inflated.

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ANALYSIS: 47

WHAT WAS THE MALFUNCTION?

Main canopy failed to inflate.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Possibility of the lower lateral band being caught in the anti-inversion net.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Proper inspection of canopy during packing.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE (Feet) 800	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 360'	12. SURFACE WINDS (Knots) 6	13. VISIBILITY (Feet/Miles) UNLIMITED

II. PERSONNEL		
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER Kevlar, LCE, M1950, M-16 Alice with M60 Tripod and Barrel	16. JUMPER'S POSITION IN ACFT Chalk 10 L5 1st Pass

17. TYPE PARACHUTE (Specify)	18. TYPE MALFUNCTION								19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER (SPECIFY)		
T-10		PILOT CHUTE		BLOWN SECTION	X	BROKEN SUSPENSION LINE			5

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31)	22. RESULTING INJURY
24 FT	☐ YES ☒ NO	Compound fracture right leg, large bruise inside left armpit, laceration over right eye, scrapes below chin

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper exited aircraft and stepped out with right leg. Jumper stated he felt an opening shock and felt a second jerk and immediately lost his kevlar. Jumper checked canopy and saw his suspension lines twisted. He unsuccessfully tried to bicycle out. He activated his reserve for a full malfunction and immediately hit the ground with the ripcord grip still in his hand. This is the soldiers first jump with his unit. His alice pack weighed approximately 100 pounds which included 100 rounds of M-60 ammunition, tripod and spare barrel bag. IAW the ASOP the alice pack will not exceed 95 pounds and will not contain both the tripod and spare barrel bag. The jumper's equipment was derigged by his unit prior to the malfunction NCO arriving to the jumped site. Inspection to the parachute contained the following deficiencies. Eight suspension lines on the left riser were severely burned and severed. 1-3, 5, 12-15, and 4 lines on the right riser were burned and severed. 16, 17, 29, and 30. Line 4, 6-11, 20 and 22 were burned. The left front and rear riser had burns 5 inches below the connector links. The lower lateral band on gore 30 was burned and sections 1, 2, and 5 had burn holes. Burn holes on gore 1 sections 2 and 4, gore 2 section 5, gore 3 section 5, gore 4 section 5, gore 8 section 1, gore 9 sections 2 and 4, gore 11 section 4, gore 13 section 3, gore 14 sections 2 and 3. The anti-inversion net torn on gore 4-14 and net material is fused to the lower lateral band on gore 14. The reserve was inspected and 7 of 12 stows were still intact. The jumpers kevlar was inspected and the chin strap was missing and the metal buckle was broken. Burn marks were found on left side of alice pack. Two burns on his lowering line cover. The upper tied down to the M1950 case was broken and burned. The securing strap of the 2 quart canteen was routed under the alice frame and had a burn mark. The hook end of the strap was pulled away and straightened.

CONTINUED ON NEXT PAGE

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

The jumper may have rode the back pack of the jumper in front of him, which caused him to be hit in the face with the D-bag. He may have also made contact with another jumper's equipment. This contact could have caused broken and burned lines. It could cause damage to the canopy and anti-inversion net. Another possible cause is a misrouted static line. This could explain the burns to the left riser and suspension lines. Upon exiting the aircraft, the deployment sequence was momentarily stopped due to the static line misrouted through the left riser group. This could explain the first opening shock (jerk) the jumper said he felt. Then he was hit by the jumper after him. This could account for the second opening shock (jerk) that the jumper said he felt and subsequent loss of his kevlar. This would also explain injuries to his face. In either case with 12 broken lines, the broken lines could have wrapped around the remaining lines preventing him from bicycling out. The safety stated that upon recovering the D-bag it was literally shredded. He gave the D-bag to the Air NCO for the unit. Another soldier saw the D-bag and stated that the stow panels were ripped out completely. The back of the D-bag had burn marks the length of the bag.

ANALYSIS: 48

WHAT WAS THE MALFUNCTION?

No malfunction.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Misrouted static line.
2. Suspension lines twisted.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Follow established jump procedures.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
1250	130	100 FEET ASL	5-7	20+

II. PERSONNEL		
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER	16. JUMPER'S POSITION IN ACFT
	RUCK SACK	NO 2 L-DOOR

17. TYPE PARACHUTE (Specify)	18. TYPE MALFUNCTION										19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER (SPECIFY)				
MC1-1C		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	Activated Canopy Release				300+

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31)	22. RESULTING INJURY
T-10	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper stated that after exiting, he then went into his second point of performance and noticed the safety clip of his left canopy release assembly was open and the latch assembly was beginning to separate. He immediately secured it with the left hand and activated his reserve parachute for a total malfunction as a result of his situation. Once the jumper's reserve canopy was completely inflated, he released his grasp of the left assembly which became entangled with the reserve suspension lines. This action also caused the main parachute to remain partially inflated. The jumper landed safely with no injuries.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

A 100 percent technical rigger type inspection was conducted on the air items involved, the results are as follows: An activation pull test was conducted on both canopy release assemblies. The left required 8 to 11 pounds of tension for activation and the right assembly activated with 20 to 23 pounds. This is a rare, and quite possibly an isolated incident. We believe, based on the jumper's statement and our findings, that the jumper made contact with either the trailing edge of the door during his exit or his static line made contact with the assembly and caused the safety clip to open. As the jumper was going into his second point of performance, he accidently activated the assembly with his hand, BDU jacket button and/or sleeve.

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ANALYSIS: 49

WHAT WAS THE MALFUNCTION?

No malfunction - incident.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Unknown.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Proper inspection.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT AF C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE (Feet) 12,500 AGL	10. ACFT SPEED (Knots) 120 KTS	11. DZ ELEVATION (Feet) 480 FT	12. SURFACE WINDS (Knots) 5-10 KTS	13. VISIBILITY (Feet/Miles) UNLIMITED

II. PERSONNEL		
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER MC-4 PARACHUTE SYSTEM	16. JUMPER'S POSITION IN ACFT 4TH JUMPER OF 15 ON PASS

17. TYPE PARACHUTE (Specify)	18. TYPE MALFUNCTION								19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER (SPECIFY)		
MC-4		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	HUNG SLIDER		3

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31)	22. RESULTING INJURY
MC-4	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper exited the aircraft at 12,500 AGL. At 4,000 AGL, jumper deploys main canopy, checks canopy and notices he has a hung slider. Jumper attempts to clear the slider by pulling down on his control lines twice. Slider is still hung up at the base of the canopy; jumper then performs emergency procedure and is under a good reserve canopy above 2,000 AGL. Jumper lands on the intended drop zone with no further incidents.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

After 100 percent inspection of the main canopy was performed, there was no damage to the canopy, both left and right toggles were unstowed and the slider was at approximately 3/4 of the way up the suspension lines. The determination of the malfunction was a HUNG SLIDER.

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ANALYSIS: 50

WHAT WAS THE MALFUNCTION?

Hung slider.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Tension knot.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Pack IAW TMs and publications.
2. More training.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE *(Feet)* 12,500 FT AGL	10. ACFT SPEED *(Knots)* 120 KNOTS	11. DZ ELEVATION *(Feet)* 480 FT	12. SURFACE WINDS *(Knots)* 7 KNOTS	13. VISIBILITY *(Feet/Miles)* UNLIMITED

II. PERSONNEL		
14. NAME *(Last, First, MI)*, GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER MC4 PARACHUTE SYSTEM	16. JUMPER'S POSITION IN ACFT 1ST PASS/ 4TH JUMPER

17. TYPE PARACHUTE *(Specify)*	18. TYPE MALFUNCTION										19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER *(SPECIFY)*				
MC4		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	Line Twist				1

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY *(If "No" explain in item 31)*	22. RESULTING INJURY
MC4	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

After exiting the aircraft at 12,500 feet AGL, jumper initiated ripcord pull at 4,000 feet AGL. During parachute deployment, jumper looked up and seen numerous twists in the suspension lines. Jumper felt that he was falling faster than he should be. Jumper performed cutaway procedures and deployed reserve parachute. Jumper landed on the DZ with no injuries.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

After inspecting the main parachute, no damage or abnormalities were found. Control goggles were still stowed in the keepers. Jumper was in an unstable body position during parachute deployment, causing the parachute to have line twist. This should not be considered a malfunction due to the jumper's experience, he did perform post-opening procedures correctly and cutaway main parachute prematurely.

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ANALYSIS: 51

WHAT WAS THE MALFUNCTION?

Incident.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Jumper experience.
2. Improper procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Training.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT AF C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE *(Feet)* 12,500 AGL	10. ACFT SPEED *(Knots)* 120 KNOTS	11. DZ ELEVATION *(Feet)* 480 FEET	12. SURFACE WINDS *(Knots)* 3 KNOTS	13. VISIBILITY *(Feet/Miles)* NIGHT

II. PERSONNEL		
14. NAME *(Last, First, MI)*, GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER MC-4 Parachute System	16. JUMPER'S POSITION IN ACFT 11th Jumper

17. TYPE PARACHUTE *(Specify)*	18. TYPE MALFUNCTION								19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER *(SPECIFY)*		
MC-4		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	Hung Slider		35

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY *(If "No" explain in item 31)*	22. RESULTING INJURY
MC-4	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper exited the aircraft at approximately 12,500 AGL. Jumper deploys main canopy at 4,000 AGL and went into a left hand spin. Jumper attempts to free slider by unstowing the brakes to full extension. Unsuccessful, jumper continued with post-opening procedures (controllability check). At which time jumper performed his emergency procedures and under canopy by 3,000 AGL. Jumper lands on the intended drop zone with no further incidents.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Recovered main parachute and performed 100 percent inspection. No damage or abnormalties were found. Both the right and left toggles were unstowed, slider is midway on the suspension lines. Jumper performed correct procedure. Hung slider was the determination of the malfunction.

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ANALYSIS: 52

WHAT WAS THE MALFUNCTION?

Hung slider.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Hung slider.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Follow pack procedures.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT CASA 212	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE (Feet) 12,500 FT AGL	10. ACFT SPEED (Knots) 110 KTS	11. DZ ELEVATION (Feet) 480 FT	12. SURFACE WINDS (Knots) 8-10 KTS	13. VISIBILITY (Feet/Miles) UNLIMITED

II. PERSONNEL		
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER MC4 Parachute System	16. JUMPER'S POSITION IN ACFT 1ST PASS/ 4TH JUMPER

17. TYPE PARACHUTE (Specify)	18. TYPE MALFUNCTION								19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER (SPECIFY)		
MC4		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	Closed end cells		3

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31)	22. RESULTING INJURY
MC4	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

After exiting the aircraft at 12,500 feet AGL, the jumper deployed his main parachute at approximately 4,000 feet AGL while in a stable body position. The parachute deployed, however, the left side of the canopy did not inflate. Jumper made two attempts to inflate the canopy by pulling on the control handles, but was unsuccessful. The canopy began spinning to the left, the jumper performed cutaway procedures and deployed reserve parachute. The jumper landed safely on the DZ with no injuries.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Left three end cells failed to inflate causing the parachute to go into a violent spin. Recovered main parachute and a 100 percent inspection was performed. The control hnadles were cleared from the keepers, no damage or abnormalities were found. The cause of this malfunction has not been determined.

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ANALYSIS: 53

WHAT WAS THE MALFUNCTION?

Closed endcells.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Poor packing procedures.
2. Experience level.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Follow pack procedures.
2. More training.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE (Feet) 1250 AGL	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 525 FT	12. SURFACE WINDS (Knots) 0-1 KNOTS	13. VISIBILITY (Feet/Miles) CLEAR

II. PERSONNEL		
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER LBE AND KEVLAR	16. JUMPER'S POSITION IN ACFT 13TH OF 15 JUMPERS RT DOOR, 3RD PASS

17. TYPE PARACHUTE (Specify)	18. TYPE MALFUNCTION						19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER (SPECIFY)	
MC1-1C		PILOT CHUTE	X	BLOWN SECTION		BROKEN SUSPENSION LINE	CONTROL LINE SEPARATION	36

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31)	22. RESULTING INJURY
T-10 RES	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Both control lines ripped from canopy. Gore 6 blown from lower to upper lateral band. Jumper exited the aircraft and experienced twists in the suspension lines, and noticed a hole in the canopy. After the jumper bicycled out of twists, he noticed that both control lines had broken free and the hole continued to rip through the canopy. The jumper immediately checked his rate of descent with other jumpers and deployed his reserve using the pull drop method, which caused the reserve parachute to fall and wrap around the jumper's legs. The jumper retrieved the canopy and used the down and away method. The reserve then opened at tree top level. Upon completion of the investigation, severe damage was found throughout the canopy. The major portion of the damage involved the loss of gore 6 and both control line bridles.

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32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

1. Suspect canopy defect. In accordance with other probable causes. The jumper exited the aircraft and experienced twists in suspension lines. Placing additional stress upon the upper portion of the canopy. This stress placed on the canopy may have been great enough to break the control line and cause material separation. When the jumper completed his bicycling maneuver to gain canopy control, additonal separation of the canopy resulted in the loss of the parachute gore.
2. Aircraft speed.
3. Combination of canopy defect and aircraft speed. The combination of these two factors could possibly have caused the resulting severe damage to the parachute.
4. Probable prior malfunction history. Prior malfunction reports suggest probable defect in equipment material. Previous reports are almost identical to this incident.
5. Parachute sent to Natick for airworhiness assessment.

NOTE: This equipment is a newer version of MC1-1C parachute system which is in compliance maintenance advisory message MAM-ATCOM 96.014 dated 23 May 1996.

ANALYSIS: 54

WHAT WAS THE MALFUNCTION?

Control line separation resulting in canopy damage.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Possible material defect.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Further testing required.
2. Follow guidelines.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE *(Feet)* 1000 AGL	10. ACFT SPEED *(Knots)* 125 KNOTS	11. DZ ELEVATION *(Feet)* 1086	12. SURFACE WINDS *(Knots)* 7 KNOTS	13. VISIBILITY *(Feet/Miles)* UNLIMITED

II. PERSONNEL		
14. NAME *(Last, First, MI)*, GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER NONE	16. JUMPER'S POSITION IN ACFT #1 LEFT DOOR

17. TYPE PARACHUTE *(Specify)*	18. TYPE MALFUNCTION								19. NO. JUMPS
	☐	SEMI-INVERSION	☐	INVERSION	☐	CIGARETTE ROLL	OTHER *(SPECIFY)*		
MC1-1C	☐	PILOT CHUTE	☐	BLOWN SECTION	☐	BROKEN SUSPENSION LINE	Control line bridle ripped off		49

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY *(If "No" explain in item 31)*	22. RESULTING INJURY
T-10 Reserve	☐ YES ☐ NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The jumper exit was normal. During the jumper's second point of performance, he noticed that the left control line had broke free of the canopy. The jumper landed safely, without injury. An inspection of the parachute revealed damage to radial seam 5, where the control line bridle ripped off; radial seam 6, where the control line bridle partially ripped from the seam; gore 5, section 3, rip, 8-inches long, and gores 22 and 23, section 5, 1 small hole each.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

A 100 percent technical rigger inspection was performed on the parachute. The control line and control line bridle was reassembled to the radial seam with push pins in order to conclude whether the control line adjustment were proper. The adjustment on the control line was as perfect as one can make it. It ws determined that the left control line bridle attached to the radial seam 5, apparently received the initial opening shock of the canopy instead of the suspension lines. This caused the control line bridle to rip free of the canopy. The canopy damage resulted from the control lien and reefing ring making contact with the canopy during the process of ripping free. All required modification/alterations to the parachute are in compliance. Excessive aircraft speed may have been a contributing factor to this malfunction. As in the eighties, restricting the use of the MC1-1C parachute to rotary wing aircraft may be the interim solution until the engineers resolve the equipment problem.

CONTINUED ON NEXT PAGE

ANALYSIS: 55

WHAT WAS THE MALFUNCTION?

Control line separation resulting in canopy damage.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Possible material defect.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Further testing required.
2. Follow guidelines.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE *(Feet)* 8100' AGL	10. ACFT SPEED *(Knots)* 125 KNOTS	11. DZ ELEVATION *(Feet)* 5000'	12. SURFACE WINDS *(Knots)* 14-19 GUSTS 25	13. VISIBILITY *(Feet/Miles)* CLEAR

II. PERSONNEL		
14. NAME *(Last, First, MI)*, GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER MC-4 FF2, Altimeter	16. JUMPER'S POSITION IN ACFT #7 out of 17

17. TYPE PARACHUTE *(Specify)*	18. TYPE MALFUNCTION								19. NO. JUMPS
	☐	SEMI-INVERSION	☐	INVERSION	☐	CIGARETTE ROLL	OTHER *(SPECIFY)*		
MC-4 RAM Air Parachute	☐	PILOT CHUTE	☐	BLOWN SECTION	☐	BROKEN SUSPENSION LINE	Canopy collapsed		800+

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY *(If "No" explain in item 31)*	22. RESULTING INJURY
MC-4 RAM Air Parachute	☐ YES ☐ NO	Right femur broken in 4 places, right knee, left ankle, left tibula and fibula

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

I could not see the actual malfunction from my position on the drop zone, due to the wind blowing the jumpers over a hill. Jumper said at approximately 50 to 75 feet the end cells of his canopy collapsed causing no lift capability.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

In my opinion, the malfunction occured due to the high winds. As the jumper landed in between two large hills, the winds in this area may have facilitated the canopies collapses.

CONTINUED ON NEXT PAGE

ANALYSIS: 56

WHAT WAS THE MALFUNCTION?

Incident.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

High winds.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Failure to follow procedures.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			C-130	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
1000 FT AGL	130 KNOTS	300 FEET	4 KNOTS	1 MILE

II. PERSONNEL		
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER	16. JUMPER'S POSITION IN ACFT
	M1950 WEAPONS CASE, WEAPON, ALICE PACK, LBE	11TH JUMPER LEFT DOOR

17. TYPE PARACHUTE (Specify)	18. TYPE MALFUNCTION						19. NO. JUMPS
		SEMI-INVERSION		INVERSION	X	CIGARETTE ROLL	OTHER (SPECIFY)	
T-10C		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE		13

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31)	22. RESULTING INJURY
T-10	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper exited normally. Jumper stated that he felt no opening shock. Jumper checked canopy and discovered that he did not have a fully inflated canopy. Jumper found himself falling faster than the other jumpers. Jumper immediately went into emergency procedures, using the down and away method. Jumper stated that he was under reserve canopy for about 8-10 seconds prior to landing on dropzone. Jumper received no injuries. I noticed that both canopy release assemblies had been activated. The right canopy release assembly was laying on the ground approximately 12 to 14 inches from jumper's right shoulder. The left canopy release assembly was lying on top of the main canopy entangled within the left group of suspension lines at approximately 25 feet from the jumper's left shoulder. All combat equipment that the jumper was wearing was rigged in accordance with FM 57-220. All air items were recovered and returned to the parachute rigger facility for a 100 percent TRI and determination of cause of malfunction. The following damages were discovered: (1) The first square of the anti-inversion net attached to the suspension lines #16 and #30, the stitches were completely broken away. (2) Gore #2, section 2, two 3/4-inch holes and approximately 2 inches of burns on canopy. (3) Gore #3, section 3, four 1/2-inch holes in canopy.

CONTINUED ON NEXT PAGE

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Completion of the 100 percent TRI. Both canopy release assemblies functioned properly. Placed a soldier in the harness and dropped soldier 12 to 14 inches to see if canopy release assemblies would prematurely release. This task was conducted in the riggers drying and shakeout tower. Both canopy releases remained seated tightly with no play in either. There were no unusual wear marks or scratches on any of the metal portions.The canopy release covers closed tightly with no play in either. The canopy was manufactured FEB 86 and placed in service OCT 91. I believe that the cause of malfunction could have been that the canopy release assembly inadvertantly released. Which could have come from jumper making contact with door duirng exit procedures or canopy release assembly was not seated. Jumper may have had bad body position after exiting aircraft.

ANALYSIS: 57

WHAT WAS THE MALFUNCTION?

Canopy failed to inflate.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Unknown - lack of information.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Possible pocket band entangled with anti-inversion net.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE (Feet) 800	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 345	12. SURFACE WINDS (Knots) 4-6	13. VISIBILITY (Feet/Miles) 6 MI Scattered

II. PERSONNEL		
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER Ballistic Helmet, LCE, Alice Pack, M1950	16. JUMPER'S POSITION IN ACFT #25 LEFT DOOR 3RD PASS

17. TYPE PARACHUTE (Specify)	18. TYPE MALFUNCTION								19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER (SPECIFY)		
T-10C		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	TOWED JUMPER		22

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31)	22. RESULTING INJURY
24 FEET	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

FOR INFORMATION ONLY: On the third pass, the 24th jumper lost his balance and hit the trail edge of the door. The jumpmaster stopped the stick until the jumper was able to exit. Jumper #25 moved toward the door and exited. Two additional jumpers exited after jumper #25. The jumpmaster prepared to exit the aircraft when he noticed a towed jumper. The M1950 weapon container of jumper #25 was lodged in the V-brace just to the trail edge of the left door. The jumpmaster did not exit the aircraft together with the safety attempted to free the M1950 weapons container IAW FM 57-270 and the ASOP. Unable to free the equipment, a successful attempt was made to pull the jumper back into the aircraft. The jumper was cold and shaken, however, he was not injured.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

NOT A MALFUNCTION:

Possible causes:

-Improper exit procedures.

-Loose leg strap (unable to be determined, could have occurred while being towed).

CONTINUED ON NEXT PAGE

ANALYSIS: 58

WHAT WAS THE MALFUNCTION?

Incident.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Follow procedures.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT	5. ACFT SER NO.
			CASA 212	

6. OPERATION/EXERCISE	7. DZ AND LOCATION	8. DATE AND TIME

9. ACFT ALTITUDE (Feet)	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots)	13. VISIBILITY (Feet/Miles)
12,500 FT AGL	110 KTS	480 FT	0-5 KTS	UNLIMITED

II. PERSONNEL		
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT	15. EQUIPMENT WORN BY JUMPER	16. JUMPER'S POSITION IN ACFT
	MC4 Parachute, Oxygen Mask with Twin 53 Bail-Out System	10 Men Grouping 10th Jumper/1st Group

17. TYPE PARACHUTE (Specify)	18. TYPE MALFUNCTION								19. NO. JUMPS
		SEMI-INVERSION		INVERSION		CIGARETTE ROLL	OTHER (SPECIFY)		
MC4		PILOT CHUTE		BLOWN SECTION		BROKEN SUSPENSION LINE	Premature brake release		32

20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31)	22. RESULTING INJURY
MC4	[X] YES [ ] NO	NONE

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

After exiting the aircraft at 12,500 feet AGL, jumper deployed main parachute at approximately 4,000 feet AGL. The parachute deployed, but had several twists in suspension lines. Jumper performed procedures to untwist suspension lines. The parachute started turning violently to the left, jumper could not control the parachute and performed cutaway procedures and deployed reserve parachute at approximately 2600 feet AGL. Jumper landed safely on the DZ with no injuries.

32. CAUSE OF MALFUNCTION/FAILURE (if more space is needed, continue on reverse.)

Recovered main parachute and performed 100 percent inspection. No damage or abnormalities were found, but the right control handle was released and the left control handle was still stowed, causing the parachute to turn uncontrollably to the left. Cause for this malfunction was jumper did not perform post-opening procedures for premature brake release.

CONTINUED ON NEXT PAGE

ANALYSIS: 59

WHAT WAS THE MALFUNCTION?

Incident.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Follow procedures.

SUMMARY OF SUPPLY AND EQUIPMENT DROPS

3D TRIANNUAL CY 96

	PLATFORM LOAD		SINGLE CONTAINER		CDS		LAPE		TOTAL	
Number of Drops	254		169		265		0		688	
Number of Malfunctions	12		2		25		0		39	
Percentage of Malfunctions	4.724		1.183		9.433		0		5.669	
Malfunction Phases:	IP	EF	IP	EF	IP	EF	IP	EF	IP	EF
Extraction	4	3	0	1	6	7	0	0	10	11
Deployment-Recovery	3	2	1	0	2	10	0	0	6	12
Release	0	0	0	0	0	0	0	0	0	0

IP-Incorrect Procedures EF-Equipment Failure

SUMMARY OF PERSONNEL PARACHUTE JUMPS

3D TRIANNUAL CY 96

		C-130	C-141	OTHER	TOTAL
Nonmaneuverable	Number of Deployments	36,088	20,514	2,676	56,602
	Number of Malfunctions	4	1	1	6
	Percentage of Malfunctions	0.011	0.005	0.037	0.011
Maneuverable	Number of Deployments	3,135	303	4,418	7,856
	Number of Malfunctions	3	1	0	4
	Percentage of Malfunctions	0.096	0.330	0	0.051
Free-Fall	Number of Deployments	526	27	3,315	3,868
	Number of Malfunctions	7	0	5	12
	Percentage of Malfunctions	1.333	0	0.151	0.311
Total	Number of Deployments	39,749	20,844	10,409	68,326
	Number of Malfunctions	14	2	6	22
	Percentage of Malfunctions	0.035	0.009	0.058	0.032

SUMMARY OF
PERSONNEL PARACHUTE MALFUNCTIONS

3D TRIANNUAL CY 96

	NON-MANUEVERABLE	*	MANUEVERABLE	*	FREE-FALL	*	RESERVE	*
Number of Deployments	172,457		7,406		3,974		17	
Number of Malfunctions	6		3		13		0	
Towed jumper	1	*	0		0		0	
Broken Static Line	1		0		0		0	
Entanglement	1	*	0		0		0	
Failed to Inflate	2	*	1		1	*	1	*
Inversion	0		0		0		0	
Pilot Chute	2		0		0		0	
Semi-Inversion	0		0		0		0	
Suspension Lines	1		0		0		0	
Other	1		1		10	*	0	
Percentage of Malfunctions	0.009		0.068		0.603		5.882	
Fatalities	0		0		1		1	

*Injuries

INJURIES OCCURRING ON PARACHUTE OPERATIONS
AS REPORTED ON DA FORM 285

JULY - SEPTEMBER 96

	C-130	C-141	UNKNOWN	TOTAL
PLF-Related Injuries	9	2	43	54
Main Malfunction	1	0	0	1
Misrouting of Static Line	1	0	0	1
Entanglements	1	0	2	3
Tree Landings	1	0	4	5
In Aircraft	1	0	0	1
Hazards on Drop Zone	0	0	1	1
Other	0	0	6	6
Insufficient Information	0	0	0	0

AIRCRAFT MALFUNCTIONS

These malfunction reports are not included in the statistical data nor reflected in the percentage of malfunctions. All aircraft systems malfunctions which may have led to an abort or no-drop are constantly reviewed and analyzed for repeat or recurring trends and solutions. Corrective actions are recommended through Air Force maintenance systems.

PERSONNEL DROPS	
Improperly operating doors or ramps	0
Static line retriever	0
SUPPLY AND EQUIPMENT DROPS	
Rail locks	2
Improperly operating ADS	0
Improperly operating doors or ramps	0
Release mechanism	0
Electrical system	0
CONTAINER DROPS	
Rollers	4
Type XXVI gate	7
Static line retriever	4
TOTAL	17

HOT POOP

TRI-ANNUAL MALFUNCTION BOARD
26-27 FEB 97
MINUTES

CW4 Mahon opened the board with administrative notes and collection for the social to be held at FBOC on 26 Feb 97.

CW4 Mahon advised the group that the C-17 meeting will be held at 1300 hours at the SOTB C-17 conference room 27 Feb 97.

CW4 Mahon also advised the group that rigging manuals, malfunction board minutes and analysis would no longer be published on paper and distributed the NET address.

Mr. Don Stump gave an update on the review process of AR 750-32 and AR 59-4 (APR 1310). The regulations are currently being staffed through the joint services and expects responses and release/publication in approximately 90 days.

WO1 Haskins, 82d ABN DIV, briefed the status of the rigger ball and advised that 510 personnel had paid and there were no empty seats for additional responses.

CW4 Mahon advised CW4 Neises that the QM School was asking his unit to sponsor the hext rigger ball at Fort Benning, GA in the Jun 98 timeframe. Mr. Neises advised that it was doable and he would get back after he discussed with his command.

MSGT Wagner raised several issues with malfunction reports received via FAX and the quality of information some reports contained. He also reinforced the fact that the board results would be on the internet and the manuals being on CD and internet also.

As a result of a requirement resulting from the fielding of MIRPS, a requirement to monitor usage became known. CW4 Mahon advised users of MIRPS of this requirement and advised that the usage would have to be submitted on the monthly airdrop summary report in the REMARKS column. This is a TECOM requirement to reinforce the reliability/confidence statistical factors.

SMSGT Cannon from AMC advised the group that he would be PCSing to Europe this summer and SMSGT Kennedy would be his replacement. He further advised the USAF personnel the MSGT Wagner, USAQMS and SMSGT Kennedy were the two personnel to be used for USAF airdrop issues and coordination between services.

SMSGT Cannon also indicated an urgent need for the extraction parachute jettison device. This is an ongoing effort and both Natick and CASCOM are working this issue. He further stated that the 500 foot airdrop capability must use a towplate system thereby enhancing accuracy and reliability.

CW4 Mahon briefed current issues on the C-130J and current modifications to same. He also briefed the current test schedule and potential delays in delivery dates and testing.

CW3 Kendell, ATCOM, briefed the current plan to PCS to Natick this summer and that with the move there should not be any interruptions of service as responsibilities shift from ATCOM to Soldier Systems Command.

A USAF member announced the need for a loadmaster to support Natick's liaison position with the following POC for further information: SMSGT HUDES - DSN 944-3006.

HOT POOP (CONTINUED)

CW2 Snoddy provided the group with his e-mail address (tsnoddy@natick.amed02.army.mil) and an update on the following tests:

MC1-1 (further testing varying conditions to attempt to simulate causes of canopy/control line damages).

MIRPS (ITP meeting 25 Feb 97 concluded that confidence/reliability objectives were met and appropriate materials were replaced to eliminate areas of concern and that ATCOM should aggressively pursue awarding a contract to get the program back on line).

Miscellaneous issues included centerline length for G-11B/C, G-12E: G12E bag retention strap: and G11 contingency parachute repack cycle. Mr. Harper advised the only exception to any policy was directed towards NCAD where there is a climate controlled storage facility.

CW4 Mahon then opened the floor for discussion of the C-17 and the areas of concern of utilizing this aircraft without having procedures for modification of air items, rigging procedures for line bags and a requirement to use non-standard air items. CW4 Mahon also discussed the fact that the procedures currently being used by Charleston based C-17 aircrews of jettisoning airdrop loads as a standard was a questionable practice. MAJ Griffin, 82nd ABN DIV advised that this practice was unacceptable and until all issues are resolved, his unit would no longer JA/ATT this aircraft. SMSGT Cannon, AMC, advised that he would put out a message to aircrew units halting airdrop using the current procedures until something formal with correct authority is published. This particular item will be briefed to command levels and everyone concerned should expect to hear more in the immediate future.

CW3 Snoddy reviewed procedures to airdrop from the C-17 and identified several discrepancies and made this information to the forum.

JOHN R. MAHON
CW4, USA
Senior Airdrop Systems Technician

HOT POOP (CONTINUED)

UNCLASSIFIED

061500Z FEB 97 RR RR UUUU ZYUW AD-PUBS-M

NO

UNCLAS

SUBJECT: TRIANNUAL AIRDROP REVIEW AND MALFUNCTION/SAFETY ANALYSIS WEB SITE

1. THE TRIANNUAL AIRDROP REVIEW AND MALFUNCTION/SAFETY ANALYSIS (TARM/SA) WILL BE AVAILABLE ONLY THROUGH THE U.S. ARMY QUARTERMASTER CENTER AND SCHOOL, AERIAL DELIVERY AND FIELD SERVICES DEPARTMENT WEB SITE. HARD COPIES WILL NO LONGER BE MAILED OUT. TARM/SA RESULTS VOLUME II 1996 IS CURRENTLY ACCESSIBLE THROUGH THE WEB SITE.

2. THE AERIAL DELIVERY AND FIELD SERVICES DEPARTMENT'S WEB SITE ADDRESS IS HTTP:// LEE-DNS1.ARMY.MIL/QUARTERMASTER/ADFSD.HTML

3. THE WEB PAGE ALSO CONTAINS INFORMATION ON THE AERIAL DELIVERY DIVISION, THE FIELD SERVICES DIVISION, THE SLING LOAD OFFICE, AND THE AIRDROP MANUAL AND MAL-FUNCTION OFFICE.

4. SPECIFIC INFORMATION ON THE SLING LOAD ISNPECTOR CERTIFICATION COURSE IS ALSO AVAILABLE ON THE WEB PAGE. INCLUDED IN THE INFORMATION PACKET ARE COURSE DATES, DATES FOR MOBILE TRAINING TEAM VISIT, AND THE POINT OF CONTACT.

ROGER HALE, C ADMMO, FORT LEE VA
ATSM-ADFSD DSN 687-4769